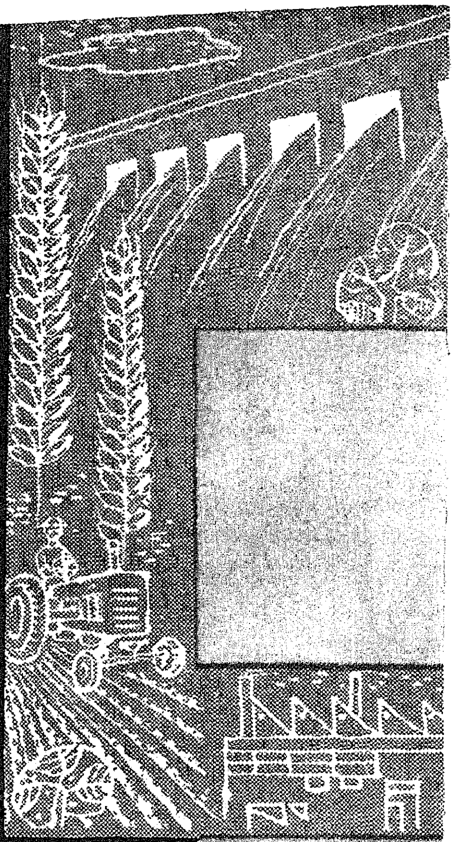

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19 AUG 1959

"We seek to Serve and Not to Compete"

Published every month by the Director of Information and Publicity, Fort St. George, Madras-9.

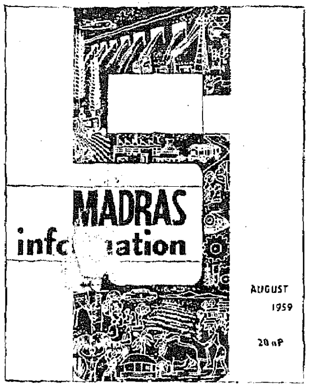
Single Copy
20 naye Paise.

Annual Subscription
Rs. 2·25.

Advertisement rates on request.

Cover Design by S. S. Kalathil.

This month's cover:



We have been enjoying twelve years of freedom from foreign rule. In order to free us from want, hunger and other problems which face a new nation, Five-Year Plans have been formulated and executed. We are now nearing the end of the Second Five-Year Plan. And our achievements in the past 9 years have not been by any means small. What has been done in the Twelfth year of Freedom is given in detail in the article on page 2.

MADRAS information

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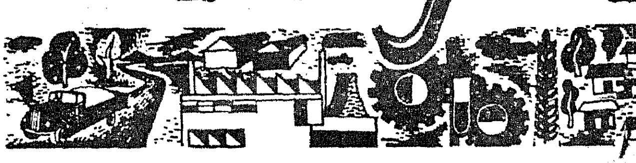
Twelfth year of Freedom



Madras in the Twelfth Year of Freedom is well set to consolidate the gains in the form of productive resources created under two successive plans and make a determined bid for increased production both agricultural and industrial. This shift in emphasis is reflected in the State-wide Kl ariff campaign launched this year and in the energetic drive initiated to see that all the newly created irrigation potential is utilised to the fullest extent. This is so in practically every State endeavour. In the course of last two years, we had some inkling of the large reserves of local resources that lie ready to be tapped, through the substantial progress of local development works and the striking success of midday meals programme and the school improvement scheme. Pro rammes like these which draw forth the resources of the community hold great promise for the future, as to the extent social services are financed by local effort, the State's resources can be utilised for larger and more effective outlay on power and industries.

Food occupies the first chapter of all our plans and the most important endeavour of the State. Also, food is a subject about which everybody has an opinion and an emotion. The price of foodgrains is a very important factor which governs people's attitude to everything else. A system of licensing of wholesale traders in paddy coupled with price control at the wholesalers' level is now working. People never take kindly to price controls and the present control policy is more or less contingent upon the co-operation of producers, merchants, millers and the general public.

At the same time the State's food production is increasing year by year by about two lakh tons every year over the past few years. This increase is achieved both by improved agricultural practices, as also by extension of agriculture to new areas. In the 1958–59 season the State produced 50·21 lakhs tons of food crops on 113.2 lakhs of acres while three years ago the State had 109.8 lakhs acres under food crops producing 55·21 lakhs tons. Actually if the entire production potential under the various factors like major and minor irrigation, land development and soil conservation, fertilizers, manures, improved seeds and plant protection had all been achieved, the net accretion to production would have been a little more than the six-lakh tons achieved over the last three years. Hence the Khariff campaign, for increasing production of foodgrains in the State has been launched this ye... the advice of the Soil Testing Laboratory, Coimbatore, tion of all resources, agencies and organisations and their co-ordinated use for stepping up production of food crops. The campaign has been so designed as to ensure that every farmer with lands is approached with a definite programme for increasing production in his land and that the aids for improved agronomic practices like seeds, fertilizers, insecticides and credit reach him at the approximate time.

It is not widely recognized that pioneering work has been done in the Coimbatore Agricultural College to evolve a vast range of paddy and millet seeds to suit tropical peasant farming conditions. The new strains of paddy and millet are not only capable of showing better yield and quality but are also capable of resisting and some times even being immature to some of the common pests and plant diseases of the region. These strains of paddy are being produced in State Seed Farms. At present there are 130 seed farms which produce 1,839 tons of paddy and 164 tons millet seeds which are further multiplied in village seed farms to yield 15,586 tons paddy and 1,134 tons millets seeds. This quantity is sufficient to cover about 75 per cent of the State's acreage under each crop, and by the end of the current fasli 1369, i.e., by June 1960, there will be enough seeds produced in the primary seed farms to cover the entire acreage. Ryots who choose the particular strain suitable to their soil on the advice of the Soil Testing Laboratory, Coimbatore reap the maximum benefit. It is proposed to establish two more such Soil Testing Laboratories one at Madurai and the other at Madras in order to provide this facility to the ryots of all the districts.

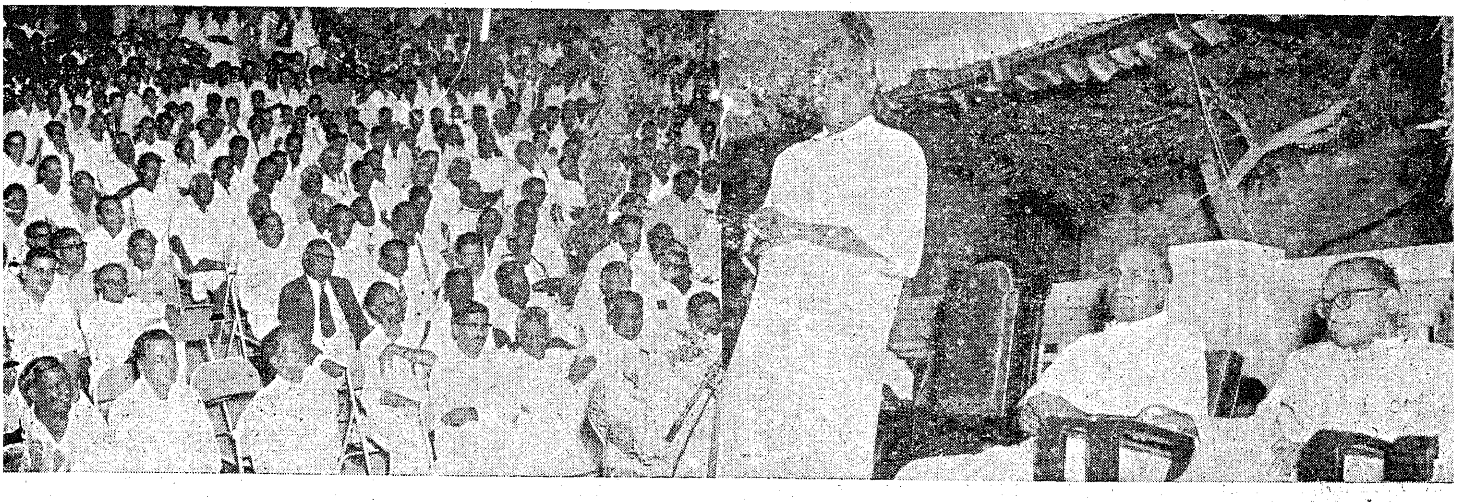
Increasing emphasis is being placed on a switch over a natural manures in combination with chemical manures. A number of schemes have been taken up to increase the production of natural manures. The urban compost scheme is being developed to cover all municipalities and 280 major panchayats.

The Block Development areas are geared to reach a production of as much as 10.48-lakh tons in two years. The smaller villages outside the Community Development areas are being encouraged to produce in 1959-60 about 2.4-lakh tons. For raising green manure crop 1,342 tons of seeds will be distributed to benefit 33.4 lakhs acres.

These steps have yielded remarkable results over the last few years as the State's yield per acre of rice is going up steadily, from 1,214 lb. in 1955-56 to 1,300 lb. per acre in 1957-58. In 1957-58, the Cauvery Delta and Coimbatore district showed an average yield of nearly 3,000 lb. per acre, more or less equal to the yield obtained in Japan.

The total land area of the State is 320 lakhs acres and 45 per cent of this area or 144 lakhs acres are sown, and cultivable waste lands represent only 6 per cent of the total area or 19 lakhs acres, but what is more serious is the fact that there also another 41 lakhs acres of land which have been allowed to lie fallow. The punitive powers under the Madras Land Utilisation Order, if enforced would help bring current fallow under cultivation. Proposals are afoot to appoint a Special Officer of the status of a Collector to enforce this order with a sense of urgency. A State-wide survey of blocks of waste lands with possibilities of reclamation has been completed and the Government have issued instructions to the Collectors to bring poramboke lands of such category under cultivation by assignment to individuals and grant of interest-free loans. The Madras Land Improvement Schemes Bill when enacted will enable Government to take temporary possession of such lands and carry out improvement works and recover the cost from the owners as well as the other beneficiaries. The stalmate in the matter of reclamation and improvement of lands will be resolved very soon. It has also been recognized that land would have been allowed to lie fallow only because suitable crop could not be revised. The Soil Testing Laboratory and the Paddy Breeding Station, Coimbatore, are both concentrating their attention on evolving strains of crop-seeds which will grow in saline, alkaline, swamp, deep-water and dry areas.

Along with agriculture, schemes of fisheries, animal husbandry and forestry have been pushed through along the pattern set by the Plan. With a view to assist the fishermen for better exploitation of the marine resources of the State, the Fisheries Department has just concluded a survey of the coastal waters with the help of certain vessels and gear received under the Indo-American Technical Co-operation Assistance and the expanded Technical Assistance Programme of the F.A.O. The survey took four years to complete and a complete chart of profitable fishing areas off the 620-mile shore-line of the State is now available. These fishing areas have all been so located to be accessible to both small and large mechanised fishing vessels, particularly for deep-sea fishing with the new types of net. The survey showed that the coastal waters of Madras are rich in bottom fisheries and that these can be easily exploited by small powered vessels with nylon nets. Already as a result of the experimental sources and demonstrations, the fishermen have fully realised the advantages and benefits of mechanised fishing, and have commenced to demand supply of such boats and nylon nets. At present more than 72 Pablo type boats have been built and distributed under hire-purchase system to groups of fishermen, and all of them are in use. Another 30 boats are under construction now. Sixty fishermen have been trained in using mechanised boats. In order to enable the fishermen to be relieved of their obligations to private money-lenders and also to help them to equip themselves with the modern types of nets and tackles, the Government have disbursed as long-term and short-term loans, a sum of Rs. 13 lakhs during the last three years. Side by side with schemes for improving their catches, the fishermen are also helped to market their catches easily. To this end, four lorries, nine Lambrettas have been put into use. The Government



The Chief Minister Sri K. Kamaraj inaugurated the Palar Water-supply Scheme at Kancheepuram in June, Photo shows the Chief Minister addressing the gathering on the occasion.

have also helped seventeen municipalities, one private market, one city market and two panchayats to improve the fish-markets to conform to hygiene standards. The four reservoirs, Bhavani, Amaravathi, Manimuthar and Sathanur have been stocked with 13 crores fingerlings and in the current year stocking of Vaigai and Krishnagiri reservoirs and the Avalanche hatchery will be taken up. The increased use of mechanised boats, has brought out the need for boat-building yards and fishing harbours. Work on a boat-building yard with slip-way in Madras is under way. Fishing harbours have been proposed for Madras, Nagapattinam, Cuddalore and Leepuram. A factory for the extraction of fish-lever oil could not come up due to foreign exchange difficulties and vigorous steps are being taken to obtain release of sufficient foreign exchange for the establishment of the factory as it would also manufacture fish-manure so badly needed to step up soil fertility.

The Animal Husbandry work in the State comprises of preserving the strain and increasing the numbers of certain well-known breeds of cattle like Sindhi, Kangayam, Sir, Hallikur Murrah and Tharparkars in the four Livestock farms at Hosur, Orthanad, Pudukottai and Chettinad. The State has only 2,893 breeding bulls of the well-known strains mentioned above and by resorting to the Artificial Insemination method coupled with eliminating scrub bulls from key-village areas the State is steadily improving the 32.6 lakhs cows and 11.5 she-buffaloes. Similar steps have also been taken in respect of sheep and poultry. There are 115 Veterinary institutions for attending to livestock diseases and for prophylactic measures against epidemics. The Madras Milk Project costing Rs. 1.24 crores, for concentrating the City milk cattle in a colony and developing it into a hygienic dairy unit is making steady progress. All the 703 acres of land required for the colony has been acquired near Madhavaram, a village in the outskirts of Madras City, and the construction of the first unit for 500 cattle with accommodation for their owners is nearing completion. Work on three more such units for 500 cattle each, has been started.

Forests.

The forests of the State are being developed and expanded not only to fulfil this traditional role as the home of the wild life and birds and supplier of many species of timber and forest produce, but also to serve the needs of animal husbandry on the one hand and of industry on the other. Over the last three years, 7,288 acres of forest area have developed as fodder banks and grazing grounds for cattle while to serve the needs of industrial raw material, 4,289 acres under matchwood, 9,384 acres under wattle and 2,026 acres under wattle have been planted. In addition, 28,222 acres have been planted with cashew and teak has been raised on 4,000 acres under irrigated conditions. Nine lakh farms have also been opened. Reclamaion of forests at a cost of Rs. 21 lakhs will be taken up in 1959-60. A Research Centre is to be set up at Kodaikanal for improving the research and experimental activities of the Forest Department during the next year.

Irrigation.

The improvement of irrigation facilities has been held to be one of the sacred tasks of Government and as such over the last eleven years a sum of Rs. 61 crores have been spent on the major irrigation projects in the State. Under the Second Plan the total expenditure up to March 1959 has been of the order of Rs. 9.31 crores. In the year 1958-59 irrigation facilities were extended to 39,000 acres—12,000 acres under Amaravathi Project and another 12,000 acres under Sathanur represent the two significant items. During the current year, irrigation facilities, will be extended to 25,000 acres, including the 10,000 acres under Vaigai. In the Vidur Reservoir Project costing Rs. 1 crores the earth dam has been completed and the excavation of canal and distributaries are expected to be completed.

In order to see that the impounded waters are utilized as quickly as possible, the Government have directed that in all major projects the distributory canals and small channels taking water to sizeable blocks of more than 50 acres, might be excavated side by side with the execution of the project. The Vidur, the Vaigai and the two canal schemes of Pullambadi and Kattalai represent the new schemes of the Second Plan and all the four schemes are likely to be put into use during this year. The Neyyar Project II Stage taken up at a cost of Rs. 27 lakhs will irrigate 10,000 acres in the Kanyakumari district by means of a 24-mile long system of canals and is nearing completion.

Parambikulam Project.

The most significant item in the irrigation programme of the State is the Parambikulam Project which at a cost of Rs. 32 crores will irrigate 2.5 lakhs acres in Pollachi, Dharapuram and Udumalpet taluks of Coimbatore and add 121,000 K.W. of power to the State grid. This project involves the diversion of the west-flowing rivers of Parambikulam, Sholiar and Aliar by means of several tunnels, the total length of which will come to 5½ miles. The total capacity of the several inter-connected reservoirs forming part of the scheme comes to 31,000 million cubic feet. In the current year's budget a provision of Rs. 1 crore has made for the project, and next year an expenditure of Rs. 3 crores is planned as labour freed from the other irrigation projects are deprived of work, and much of the machinery also would otherwise lie idle. A high level Cabinet Committee is already devising an equitable apportionment of the Parambikulam waters between the three taluks.

Minor Irrigation.

Minor irrigation schemes have assumed very great importance of late as they yield quick results, particularly in the dry areas. Over the last three years, schemes costing Rs. 236 lakhs have been completed bringing irrigation to 177,000 acres. The budget provision for these schemes in the current year is Rs. 1·18 crores. It has been found that the execution of this programme in the dry areas results in immediate increase in food production. The Special Minor Irrigation organization is therefore being asked to treat such areas as "Priority Zones". It has been ascertained that the total number of minor irrigation sources

to be improved comes to 14,000 of which 12,700 works will each irrigate 10 acres and more. The cost of the entire scheme will come to Rs. 5·5 crores, of which Rs. 4 crores will be spent on works, in the "Priority Zones" comprising Ramanathapuram district, Arantangi taluk of Tanjore district and ex-Pudukkottai State areas. The entire programme is to be completed before the end of Third Plan.

Power.

Next to irrigation, power is the most important aid to agriculture. To-day over 80,000 pump-sets employed in lifting water from wells for irrigation, are run by electricity. During last year about 14,000 agricultural pump-sets were given electricity connection. This wide extension in the use of electricity for agricultural purposes in villages once considered remote and inaccessible has been made possible by an extensive net work of sub-stations and transmission lines. During the last three years alone about 4,800 miles of high tension and 8,200 miles of low tension lines were laid, and at present the State comprises 12,150 miles high tension lines and 16,350 miles low tension lines, with 9,000 sub-station spread throughout the State distribute an annual power load of 1,500 million units, to about 6 lakhs consumers in 8,000 towns, villages and hamlets. The total capital investment on electricity plants in the State works out to Rs. 95 crores and revenue by supply of electricity amounted to Rs. 12·14 crores last year.

Under the Second Plan 135,000 K.W. of installed generating capacity have been added to the grid so far out of the five-year target of 315,000 K.W. During the current year (i.e., 1959–60) it is proposed to add another 55,000 K.W. of installed generating capacity to the grid at Kundah Power Stations I & II. Electricity will be extended to another 1,000 villages during the year, and 1,360 miles of high tension lines are expected to be erected and 15,000 pump-sets connected up.

Thus, the first block of power from the Kundah Hydel Scheme will be made available during this year. It is just a little over three years since work was started on this Rs. 35 crore Colombo plan aided project, and it is already in an advanced stage of progress not only in the construction phase but also in the transmission phase. Work on the Sandynallah Reservoir Scheme has also been started this year. This scheme on completion will enable additional generation of 54 million units at the existing Pykara and Moyar Power stations as the stored waters of the Sandynallar are to be fed into the Pykara river through a tunnel.

About 80 per cent of the State's electricity generating system is run by water-power from rain-fed rivers, subject to the vagaries of the monsoon. This has resulted in fluctuations in the generating capacity with consequent shortages during the summer months. Against a normal generating capacity of 390,000 k.w. the effective load during lean months is only 217,000 k.w. It is felt that even the commissioning of the Neyveli thermal plant would not alter the position to any great extent. As such it has been felt that the proportion of the thermal power to hydro power should be increased considerably.

Industries.

Last year saw several new undertakings usually classed as major industries go into production, for turning out dead-burnt magnesite, transformers, pig iron, fuse distribution equipments, Dunlop tyres, Broad gauge goods wagons and Meter gauge wagons. It is significant that all these industries have been established by the private sector. Manufacture of *electric motors and power-driven pumps* has made steady and sustained progress in this State, the present production capacity being 31,820 motors and 32,820 pump-sets.

In connection with the establishment of paper and allied industries in this State, a rough estimate of the available raw material sources has been made. It has been found that there is scope for the establishment of two mills at Mettur and Bhavanisagar, each with a capacity of about 50 tons a day based on bamboo, eucalyptus and bluegum woods, and a third smaller plant in the Papanasam area of the Tirunelveli district, based on eta reed.

The aluminium factory at Mettur and the raw film factory at Hullati in Nilgiris, are in the preliminary stage of establishment.

Neyveli Lignite.

The Neyveli Lignite Project in South Arcot district is the most important Plan project in this State, and lignite will be mined from next year. The Thermal Power Station Scheme for generation of 250 Mega watts of electric power has been sanctioned. This will be financed with the aid of Russian credit. The detailed project report from the Russian firm has been received and a contract for the supply, erection and maintenance of the power plant is being finalised.

The Fertilizer Production Scheme for manufacture of urea with a nitrogen content of 70,000 tons per annum has been sanctioned, subject to availability of foreign credit. Orders for the supply of plant and equipment for the Fertilizer Scheme will be placed shortly.

In regard to carbonizing and briquetting schemes, a pilot plant has been set up at Neyveli with the assistance of the Technical Co-operation Mission. Trial runs have been conducted and a detailed project report is being drawn up.

The most important industry of the State is the Textile industry and there are 26 composite mills and 108 spinning mills, with 28·19 lakhs spindles and 8,013 looms. The Rayon yarn factory set up in Mettupalayam by a private company with a Rs. 10 crore capital, is likely to go into production early next year.

Industrial Estates.

Under the Industrial Estate scheme 78 units in Guindy, 15 in Virudhunagar, 7 at Erode, 8 at Pettai, 12 at Madurai and 5 at Marthandam have been completed. The Guindy Estate and Madurai colony have already started functioning and the demand for space in these places was on the increase. In other colonies, the industrialists have started moving in and will commence production shortly.

In the current year it is proposed to add 19 units in Guindy, 6 units in Madurai, 14 units at Tiruchirappalli and 6 units at Tanjore.

Handlooms.

With the financial assistance provided from the Handloom Cess Fund, a number of schemes costing Rs. 125 lakhs are being implemented in this State for the development of handloom industry in the current year.

A phased programme has been drawn up for bringing at least 50 per cent of the handloom weavers in the State into the Co-operative fold by the end of the Second Five-Year Plan period. For 1959-60 provision has been made for Rs. 3·12 lakhs and 12,500 weavers expected to come into the co-operative fold.

The Government of India are sanctioning financial assistance for the setting up of housing colonies by weavers' co-operatives. The entire cost of a house, subject to a ceiling of Rs. 3,600, is provided by the Government of India, two-thirds as loan and one-third as subsidy. Thirteen housing schemes for the construction of 1,368 houses have so far been sanctioned and they are under various stages of execution. The co-operative spinning mills are coming up in the State with Government assistance in the capital structure, to ensure steady supplies of yarn of good quality at fair prices to handloom industry. These mills have been started in Tirunelveli, Tiruchendur and Ramanathapuram, the Tirunelveli mill, has already gone into production.

With a view to provide remunerative employment to the large rural agricultural population and to achieve self-sufficiency of cloth in terms of Khadi, the Government have taken a keen interest in the development of Khadi industry which is one of the major rural welfare scheme.

During the first three years of the Plan period 46,000 spinners and 2,514 weavers have been enrolled and 108.72 lakhs hanks of yarn and 20.85 lakhs yards of khadi have also been produced. Seventeen thousand seven hundred and twenty-six spinners have been enrolled and 10.25 lakhs hanks of yarn were produced in the spinning centres located in Community Development areas. The Ambar Charka which is an improvement over the traditional charka is also distributed to the spinners.

Co-operation.

The Co-operative movement in our State is sought to be given a new turn as the sole supplier of agricultural credit. The Co-operatives which covered over 49 per cent of the villages in the State and served 21 per cent of the rural population at the commencement of the Second Plan now cover 84 per cent of the villages and serve 34 per cent of the rural population providing a total loan of Rs. 13.5 crores last year.

Co-operative farming is one of the important schemes included in the Second Five-Year Plan. The target set is the organization of 30 farming societies during the Plan period and the financial provision made is Rs. 12·63 lakhs. During the first two years, eight societies of the joint and tenant-farming types were registered and another 15 societies have been registered up to March 1959.

Government have constituted a State Farming Board and have also sanctioned a Special Deputy Registrar for work connected with farming societies. He will function as the Secretary of the Board.

The Co-operative Housing Societies are implementing the State Housing Scheme as well as the Low Income Group Housing Scheme, 40 societies have already been registered, including five registered during the year. Three hundred and eighty-five houses were constructed during the first two years. The target for 1958-59 was 350 houses against which 179 houses have been completed so far. Six hundred and fifty-one houses are under construction.

The three industrial housing societies registered during the year will build 447 houses for workers.

Community Development.

The Community Development Programme is now in operation is 193 blocks covering 9,300 villages benefiting 155 lakhs of our rural population. The State has been delimited into 360 blocks. The total five-year provision for this programme is Rs. 12·75 crores, and by the end of the Second Plan period the programme will be in operation in 211 blocks. The expenditure in the current year is likely to be of the order of Rs. 287 lakhs. The seven Rural Extension Training Centres are capable of turning out 600 gramasevaks, trained under the extended training course of two-year duration.

Public Health.

The Public Health programme of the State aims at the improvement of the general level of health by expanding the basic health services and bringing them within the reach of all the people. To achieve this, emphasis is laid on the institution of measures for the control of communicable diseases which affect large sections of the community and active campaign for Environmental Hygiene, Maternity and Child Health Services, Training of Technical Personnel, Health Education and other supporting programmes for raising the standard of health of the people.

The training schemes such as Health Visitors' training have enabled sufficient number of persons to be trained to man the Primary Health Centres. Thayis are trained under another training scheme, to attend to labour cases in a clean manner in all villages.

During these few years, an attempt has been made to arouse in the minds of the villagers some thought about Public Health matters. In many of the Public Health Schemes, the villagers are actively invited to associate and co-operate with the officials for their execution. The people are made to feel the necessity for Public Health amenities. Every effort is being made to change the deep rooted superstition and old customs with regard to health and diseases. An attempt is

made to achieve positive health by the people—a State not only free from disease or bodily infirmity but a condition which aims at their well being physically, mentally and socially.

It is proposed to train all the maternity assistants in Government Medical Institutions in Family Planning Technique ; and it has been decided to concentrate on the propagation of surgical methods of Family Planning and to perform at least about 20,000 sterilization operations in Madras City alone before the end of Second Five-Year Plan period. It is proposed to constitute Family Planning propagation committees in almost all places in the mufassal. At present there are 62 rural and 14 urban Family Planning clinics are working in the State, and by the end of the Second Plan there will be 152 rural and 59 urban Family Planning clinics in the State.

Harijan Welfare.

The Harijan Welfare Programme is worked with a budget of Rs. 2.34 crores, the expenditure on education alone will come to Rs. 1.42 crores. There are nearly 1,000 elementary schools, two high schools and 72 basic schools under the control of the Harijan Welfare Department. There are no Harijan Welfare schools in Kanyakumari district, but there are 20 night schools and one pial school in that district under the control of the Harijan Welfare Department.

In 1958-59, as many as 3,133 house-sites have been provided up to 31st December 1958 and a sum of Rs. 2,81,521·70 nP. has been spent so far out of the allotment of Rs. 4,00,000. The provision made for 1959-60 is Rs. 4,00,000.

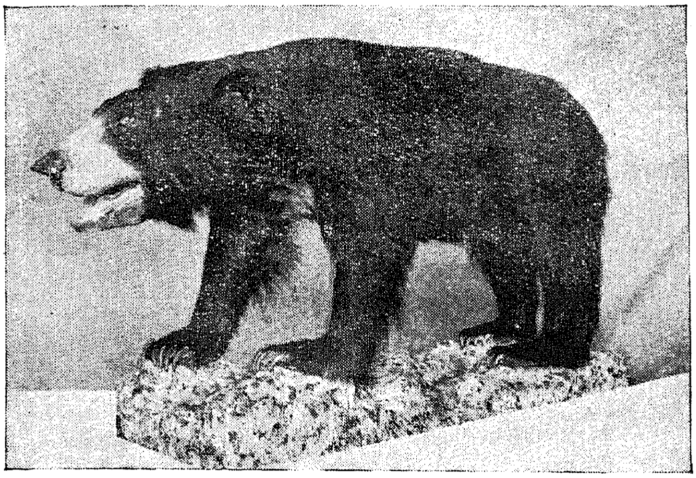
Education.

Opening of schools in villages with a population of 500 and above has been completed and in the current year it is proposed to take up villages with a population range between 300 and 500. Last year, a phased programme of compulsory education was introduced and from the current academic year steps have also been taken to see that primary education is free. During the first three years of the Plan, 6,183 additional classes in primary schools have been opened enabling the enrolment of 4·28 lakhs of pupils. Similarly additional facilities for education in all stages including technical have been provided.

The admissions to the polytechnics have been increased now to 2,160 per year. The number of admissions to the Engineering Colleges has also increased to 1,157. Fifty-seven persons are being admitted each year to post-graduate technical courses.

Converts to Christianity belonging to x-criminal tribes—Fee concessions Granted

The Government have directed that the fee-concessions admissible to the children of ex-criminal tribes be granted without reference to the religion to which the pupil belongs.



The Indian Sloth Bear.

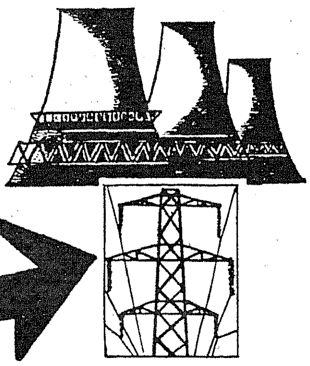
New additions to the Madras Museum

Several new exhibits have recently enriched the galleries of the Madras Government Museum. Two beautiful specimens of Macaw parrots from tropical South America have been added to the Foreign Animal Gallery. Fresh specimens of the Indian tiger and the Indian Sloth bear, mounted in life-like poses on artificial rock life pedestels are among the valuable recent additions to the Mammal gallery. A large globe-fish, Tetroden reticularis, is another interesting addition to the Fish gallery. Large mural paintings depicting various water birds in their natural haunts, and other scenes such as the Lunar Landscape and the flight of a comet across the skies, recently added, have added charm and colour to the galleries. An imposing specimen of an Ostrich recently received from the Madras Zoo has also been mounted and is awaiting final installation in the galleries shortly. A collection of 38 different species of marine shells from Japan is another interesting new addition to the Museum. This will also be exhibited in the galleries shortly.

The September Issue

of **"Madras Information"** *will carry special articles on the Madras Police Force to commemorate the Centenary of the Police Force.*

KEY TO ABUNDANT *Electricity*



G. T. SHEARS *.

Electricity generation, together with the associated transmission and distribution systems, has afforded the means by which large amounts of power can be made available over wide areas for industrial and domestic efficiency and relatively low utilization capital costs, has been appreciated throughout the world. It is, therefore, reasonable to think that the amount of electricity use.

The versatility of electricity, plus its high utilization produced or, more precisely, the amount of electricity consumed per head of population is a fair measure of the standard of living in a country; it is certainly an indication of the degree of industrialization.

Electricity is the medium through which power is made available for use, but initially it must be produced by converting energy from fuel or from falling water into rotative motion to drive the generator.

In a coal-burning power station, the chemical process of combustion liberates heat in the furnace which makes steam in the boiler. This steam is allowed to expand in a turbine which is coupled mechanically to the electrical generator. The entire process, therefore, converts the energy in the coal (heat) into electrical energy. A hydro-electric station obtains energy from water falling from a height through a water turbine which drives a generator.

Need for other sources.

Clearly, the demand for electricity can only be met by consuming coal or oil fuel, or by harnessing suitable rivers and lakes when these exist—unless an alternative source of energy is employed. Moreover, the rate of increase in electricity consumption makes it imperative to find other sources of energy, since indigenous supplies of fossil fuels are limited and are becoming increasingly difficult to obtain.

Nuclear fuel offers a source of power of proportions which eclipse conventional fuels—and herein is the key to abundant electricity supplies and higher standards of living. Some appreciation of the power available from nuclear materials may be attained by considering that the combustion of an atom—that is, the burning of a substance—yields a certain amount of energy whereas the "fissioning" of an atom produces 50,000,000 times that amount of energy. In practice, the process is imperfect, and present-day reactors produce, from the fission of natural uranium, about 10,000 times the heat available from the combustion of the equivalent weight of good coal.

The nuclear reactor is a substitute for the furnace in an otherwise conventional power station, but it is more expensive to construct. Running costs are much less than with coal or oil but, since the economics depend upon the total cost of electricity, it is necessary to examine the make-up of the cost component items.

In Britain, where large quantities of electricity are being produced from nuclear energy, there is a power programme to instal some 5,000 megawatts of nuclear plant by 1965; about a quarter of this capacity is already half erected.

Must be competitive.

It must be remembered that the United Kingdom has relatively large supplies of coal, which are being mined at the rate of 200,000,000 tons per annum. Moreover, it has played the major part in the industrial development of Britain; consequently, much is known about coal and its uses. Also there exists an extensive railway system which makes for the easy distribution of coal throughout the country. It follows, therefore, that an alternative form of fuel must be truly competitive if it is to challenge the well-stablished plants that consume the indigenous coal.

The British type of nuclear reactor is a gas-cooled, graphite-moderated device and is fuelled with natural uranium. Considering values in Britain, and using interest rates and construction costs that are applicable, it is found that a coal-burning station costs about £60 per kilowatt of installed plant to construct. A nuclear

* Deputy Commercial Manager of the Industrial Group of the United Kingdom Atomic Energy Authority.

station costs £120 per kilowatt to build, but, as stated previously, the running charges are less and consequently the cost of electricity is about equal for both types of station—around 0.66 of a penny per unit.

Bearing in mind that nuclear power is in its infancy, the cost comparisons are not discouraging, because few major scientific discoveries have ever shown favourable economics at such an early stage of development. For instance, the first steam turbine was an extravagant machine compared with the contemporary reciprocating engines; more recently, the jet aircraft has only just illustrated its supremacy over its propeller-driven counterpart.

There is a distinct difference between the combustion of fuel and the production of heat by nuclear fission. A chemical fuel can be purchased at a price related to its heat content, but the quantity of heat obtained from nuclear fuel depends largely upon factors beyond the control of the reactor operator. Natural uranium fuel elements consist of uranium bars enclosed in special containers which perform a number of vital technical functions.

Great care and precision.

It is likely that the life of the fuel element container will be the factor that influences the amount of heat obtained from the nuclear fuel. Thus the manufacture of the fuel elements is a most important matter, and much scientific and development effort has gone into producing the elements now available from Britain.

When a reactor is operating, the uranium fuel is subjected to a vigorus neutron bombardment which cannot be stimulated experimentally, and, therefore, data for fuel design must come from actual operating experience. Because of the large amounts of energy available from uranium fuel, it is kept in the reactors several years and, for this reason, must be manufactured with great care and precision.

When fuel is discharged from a reactor, it is still of value, because the fission process produces other fissionable material by transmuting uranium 238 into plutonium. Special separation plants are used to recover the plutonium for use in other reactors, and its value can be set against the cost of the initial uraniuum fuel.

Fuel arrangements.

The fuel arrangements for a nuclear-power station are, therefore, usually covered comprehensively under a scheme which ensures a supply of new fuel and allows for a credit for the irradiated material discharged from the reactor.

This *resume* has dealt only with nuclear power as it is available to-day. The future offers even greater possibilities which are likely to yield more energy for less capital investment, and the prospect of breeding nuclear fuel in reactors which convert fertile material into fissionable fuel is already a realization in plant that has been constructed.

Here, surely, is the way to more power, greater productivity and a higher standard of living.

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handloom INDUSTRY IN MADRAS STATE

SRI T. S. SANKARAN,
Director of Handlooms.

The Handloom Industry occupies a vital position in our national economy being second in importance only to Agriculture. In the Madras State, there are about 4.54 lakhs handlooms giving direct and indirect employment to about 16 lakhs of people. The handloom industry thus provides gainful employment to a considerable section of the population.

Since independence, Government at the Centre and in the States have always taken an active interest in the regeneration of village industries as the surest means of increasing the opportunities of gainful employment in rural areas. The crisis in the fortunes of the Handloom Industry in 1951-52 led to the formulation by the Government of bold programme for the development of the Industry. Along with the long-term plans for the improvement of the Industry, certain essentially short-term measures were also taken to mitigate the severity of competition between mill and handloom cloth. A ceiling was imposed on the production of cloth by the mills. Certain varieties of cloth such as bedsheets, bedspreads, lungies, etc., were reserved exclusively for production in the handloom sector. An excise duty was also imposed on mill cloth with a view to abridge the gap between the prices of mill cloth and handloom cloth. Sales of handloom cloth were exempted from taxation. Along with these measures, a Cess Fund was constituted with the levy of an additional excise duty on mill cloth produced in the country.

The creation of the cess fund proved to be a turning point in the history of Handloom Industry. Since the constitution of this fund, financial assistance has been provided on a large scale for the implementation of various schemes for the improvement of the condition of the Industry and the economic condition of the handloom weavers. Government have, at the same time been anxious that the financial assistance provided by them should reach the weavers direct without any portion of it being absorbed by intermediaries. They have felt that this object could be achieved only by canalising all their assistance through producers' Co-operatives composed of weavers. As not all the weavers could find the necessary resources for participating in co-operative organisations, interest-free share capital loans are advanced to the weavers to enable them to become members in weavers' co-operative societies. To enable these societies in their turn to provide full employment to their members, working capital is provided at the rate of Rs. 200 per loom through the co-operative financing agencies. With the assistance from the cess fund, the Madras State Handloom Weavers' Co-operative Society is enabled to open hundreds of selling units within and outside the State so that an effective market could be found for the increased production in weavers' co-operative societies. The Government have also recognised that any permanent improvement in the condition of the Handloom Industry can be effected only if its technique is modernised. They have therefore been providing financial assistance to the weavers to use improved appliances such as steel reeds, varnished healds, dobbies take-up-motion attachments, etc. The free supply of these improved appliance, has enabled the weavers to effect significant improvement in the quality of production of the handloom cloth. The Government have also recognised the need to improve the living conditions of the handloom weavers. The Handloom Industry is a cottage industry and as such the weavers house is also his workspot. The Government have therefore formulated schemes for improving the housing conditions of the weavers. The development

of the silk and art silk industry has also been taken up in hand side by side with the improvement of the cotton handloom industry.

To achieve the objective in view the Government of India have sanctioned up to 31st March 1958, Rs. 632·80 lakhs to Madras State. 610.30 lakhs of rupees have been sanctioned by the Registrar of Co-operative Societies, Madras, for execution of the various development schemes. About Rs. 22 lakhs have been issued as advance to members of weavers' co-operative societies to enable them to pay their share capital to joint these societies. Rs. 161.48 lakhs have been disbursed to the Madras State Co-operative Bank towards working capital to weavers' co-operative societies and this has enabled them to provide increased employment to weavers and pay higher wages than would otherwise have been possible. The number of weavers in co-operative societies has steadily increased from about 98,000 to 1.9 lakhs and the number of weavers' co-operative societies from about 560 to more than 980. Nearly 40 per cent of the weavers in our State have now been brought into the co-operative fold. The production and sales in weavers' co-operative societies have also registered a four-fold increase during the last four years and they stand at about Rs. 80 lakhs per month. The higher wages given in weavers' co-operative societies have had a healthy influence on the level of wages in the private sector also. As regards marketing, financial assistance to the extent of over Rs. 74·65 lakhs has been given to the Apex society to enable it to procure handloom cloth from the primaries and market it through its sales units. The number of co-operative sales units and emporia has increased in the last four years from about 50 to 300 units now. The units have enabled the handloom cloth to be popularised among larger sections of our population. The Madras State Government have also sanctioned an interest-free loan of Rs. 25 lakhs to the Madras State Handloom Weavers' Co-operative Society for the purpose of procuring accumulated stocks of handloom goods from the primary societies and effecting sales. The State society actually procured goods worth Rs. 16 lakhs. Reports indicate that the sanction of the scheme has had the salutary effect of enabling the weavers' co-operative societies to liquidate their accumulated stocks. The Government have also sanctioned more than Rs. 243 lakhs for the grant of subsidies to recoup rebate on the retail and wholesale sales of handloom cloth effected by co-operatives. Government have sanctioned so far 13 Weavers' Housing Colony Schemes for the construction of 1,368 houses at a total cost of Rs. 60.00 lakhs. The schemes are under various stages of execution. Seven Industrial Societies for handloom weavers had been started. Government have since sanctioned the establishment of two more industrial societies. These societies are giving employment to about 420 weavers and 200 other auxiliary workers. They produce fine varieties of shirtings, bedsheets, etc.

Fifteen silk handloom weavers' co-operative societies have been started with assistance from Cess Fund. They had 1,100 members on the rolls with a paid-up share capital of Rs. 1,00,050. They produced goods worth Rs. 11.31 lakhs and sold for Rs. 9.98 lakhs. A general scheme for the enlistment of 500 silk handloom weavers in weavers' co-operatives has been sanctioned. Steps have been taken to enlist them. The Art Silk Weavers' Co-operative Societies at Chinnalapatti and Komarapalayam were assisted with aid from the Cess Fund for enrolling about 200 members. Under a general scheme for admission of 1,000 art silk handlooms within the co-operative fold sanctioned by Government, 948 art silk looms have already been admitted into the co-operative fold. A Silk Co-operative Sales Emporium will be started in Madras shortly to help the disposal of the goods produced by Silk Weavers' Co-operative Societies.

Three co-operative spinning mills, one at Pettai, the second at Srivilliputhur and the third at Tiruchendur have been registered. Proposals for forming co-operative spinning mills at Salem and Aruppukottai and one or two more mills at Tirunelveli are also under consideration. The spinning mill at Pettai has gone into production with effect from 14th July 1958 with 8,000 spindles to begin with.

For the Second Five-Year Plan, Rs. 413.70 lakhs have been earmarked for the development of the handloom industry. Recently the Planning Commission increased the allotment to a little over Rs. 728 lakhs. The schemes which have been programmed for implementation during the Second Five-Year Plan relate to the enlistment of at least 50 per cent of the handloom weavers within the co-operative fold, the construction of 16 colonies of 1,600 houses at a cost of Rs. 74.29 lakhs for the benefit of members of weavers' co-operative societies, opening of 100 sales depots by the State Society, issue of grants to co-operatives to the extent of about Rs. 73 lakhs to recoup the rebate allowed on sales of handloom cloth, setting up of six industrial co-operative societies for handloom weavers, supply of improved appliances to tone up the quality of production of handloom cloth at an estimate cost of Rs. 10.85 lakhs, and training of 1,600 weavers in pattern-making factories of the State Society in evolving new designs and adopting improved methods of production, etc. Considerable progress has been achieved in implementing the schemes since the commencement of the Second Five-Year Plan. About 49,000 weavers have already been admitted into the co-operative fold since 1st April 1958. About 90 lakhs of rupees have been given to weavers' societies and the Madras State Handloom Weavers' Co-operative Society for production and marketing finance. 3.25 lakhs of rupees have been spent under technique and research and 200 lakhs of rupees under marketing, including the sanction of rebate. It is hoped that all the schemes provided for in the Second Five-Year Plan period would be implemented well ahead of schedule.

The weavers organised under the co-operative fold were greatly benefitted by the execution of the several handloom development schemes financed from the Cess Fund. Their standards of living have generally risen and their economic condition improved. Handloom fabrics have become popular in new areas and among higher income groups.

Help the Poor Help Themselves

[Chief Minister's address at the Fourth State Block Development Officers' Conference.]

Inaugurating the Fourth Block Development Officers' Conference, the Chief Minister, Sri K. Kamaraj, said that they had met there to consider the work so far done under the Community Development Programme, evaluate the progress achieved, so far, find out the difficulties confronting them and the shortcomings on their part, and devise methods for overcoming the obstacles in the way of progress. During the next few days, they should confer with each other and arrive at good and workable solutions for all the difficulties before them.

Aim of Community Development Schemes.

The Chief Minister emphasized that the officers should realize that the Community Development Programme was intended to help the people in various ways, and also to promote their welfare. There was an impression in some quarters that Community Development work consisted only in digging some wells or constructing some buildings. Such ideas had to be dispelled from the minds of the people. In the last few years, work had been done in many fields and there had been achievements to their credit in the agricultural and veterinary fields.

Sri Kamaraj pointed out that the rich people in the villages did not need their help so much as the poor, ordinary man and the ryot in the villages. The officers should remeber that if they did not help the poor people, the latter would have no one to help them at all, and would lose faith and hope. He also asked them to see to it that they did their work thoroughly, efficiently and as quickly as possible.

Co-operative farming.

On the subject of co-operative farming, the Chief Minister said that the poor, common people in the villages, were eager to have these set up. Some ryots too had some apprehensions about these co-operatives. These fears had to be removed ,he added. Yet, the poor ryots desired that the work of registration and other things connected with setting up such organizations should be done as expeditiously as possible. If, in doing this, the officers, found Acts and Rules hampering them, they should focus their attention on these things so that remedial action could be taken and such difficulties were obviated.

Working of School Meal and School Improvement Schemes—Committee of Legislators to study.

The Government have appointed a three-member Committee of Legislators with Sri K. S. Subramania Gounder as Chairman and Sri R. Krishnaswami Naidu and Sri K. Sattanatha Karayalar, as members, to make an assessment of the working of the School Meals and School Improvement Schemes. The assessment will include an examination of the arrangements made for the working of the schemes, the accounting procedure followed in respect of the sums received and expended, and the steps taken to eliminate wastage and to ensure that the schemes result in maximum benefit to the school children and the schools.

The Government have already framed rules to regulate the working of the scheme for the supply of free mid-day meals to poor pupils in elementary schools. The Committee will examine the working of this scheme in the light of those rules.

The School Meals Scheme was approved in November 1957 as a voluntary movement eligible for Government assistance and was also included in the State's Second Five-Year Plan with a total provision of Rs. 164·77 lakhs. The scheme is eligible for Central assistance up to 50 per cent of the cost. A sum of Rs. 35 lakhs was spent by Government on the scheme in 1958–59, and a provision of Rs. 60·70 lakhs has been made for the year 1959–60. The aim is to provide free meals for five lakhs of poor children in 1959–60. The scheme is expected to expand rapidly involving considerable expenditure from State and Union funds by the middle of the Third Plan period.

The School Improvement Scheme is also a voluntary movement and under the scheme, large sums of money have been collected as donations from the general public. As many as 35 School Development Conferences have been held in various districts of the State up to 11th March 1959. The total number of schemes undertaken for execution with reference to the decisions reached at the conferences held till 28th February 1959 is about 16,800. The total value of the schemes is about Rs. 220 lakhs while the value of the collections in cash and kind made on the spot at the various conferences is about Rs. 50 lakhs.

No detailed assessment of the working of the two schemes had so far been undertaken and Government are of the view that such an assessment is necessary. Therefore, the Government have constituted the " School Meals and School Improvement Schemes Assessment Committee " to make the assessment of the working of these schemes as indicated above and submit its report to Government.

The Task Before us

SRI M. G. RAJA RAM, I.A.S.
Additional Development Commissioner.

Six years have passed since the Community Development Programme was started. The result of the intensive endeavour under this programme should be reflected in the change in the social and economic life of the rural population. One of our main objects was that the benefits of scientific and technological advance should permeate down to the ground-level in a satisfying measure. For this purpose the extension activities in the Community Development Programme have been defined very clearly. Along with the availability of technical assistance and financial assistance from Government effort, from the people through people's participation is also a very vital factor for the success of the programme. I should like to give here very briefly some of the progress we have achieved due to our endeavours till now.

The total outlay under the Community Development Programme in this State since 1952 is of the order of Rs. 6·81 crores. Out of this the people's contribution is of the order of Rs. 2 crores. In the field of agriculture the application of fertilisers and usage of improved seeds along with green manure has definitely brought about an increase in agricultural production in the areas covered by the Community Development Programme. Various schemes of soil conservation and minor irrigation have also been implemented in the area and they have also directly contributed to the increase in production. 4·16 lakhs of maunds of improved seeds were distributed in 1957–58 alone among 10.32 lakhs of acres. 5.31 lakhs of acres were under green manure during the year. Nearly 5 lakhs of acres have been brought under the Japanese method of cultivation. A total of 128,857 demonstrations were conducted during the whole period.

In the field of Animal Husbandry, appreciable progress has been made in the treatment of cattle-diseases and control of epidemics. 10·83 lakhs of animals were inoculated and or vaccinated and 6·30 lakhs were treated for various diseases during 1957–58 alone. Sixty-three Veterinary dispensaries and 84 Veterinary fist-aid centres are now functioning.

The functional village leaders' camps and other seminars organized at the block, the District and Regional levels have enabled useful mutual exchange of ideas and dissemination of knowledge on all items of the programme affecting the rural economy. So far 1.58 lakhs of people have been trained in 3,113 training camps. Two thousand one hundred and thirty-six youth clubs and farmers' unions and 661 Mahila Samitees are functioning in the Community Development areas.

Employment opportunities have been created by taking up works that will benefit the community, such as construction of roads and buildings, etc., and also opening of demonstration-*cum*-production centres and subsidiary industries and introduction of khadi schemes. So far over 4 lakhs of persons have been given part-time and full-time employment under the Khadi Extension Schemes and other cottage and small industries. An annual production of cloth valued at Rs. 50 lakhs has been achieved of which over 50 per cent goes directly to the workers. In addition, artisans are given training in the use of improved tools and equipments for the cottage and small-scale industries.

Considerable progress was maintained in regard to public health and rural sanitation. Seventeen thousand and fifty-five soakage pits, 208,749 yards of drains and 6,873 rural latrines have come into existence under this programme.

The total number of blocks operating now in Madras State as on 1st April 1959 is 194 consisting of 18 old Community Development blocks, 102 Stage I blocks, 51 Stage II blocks and 23 Pre-Extension blocks. It is estimated that the total number of blocks operating at the end of the Second Plan will be about 211 excluding the Pre-Extension blocks of the Third Plan period. According to the present programme, it is expected that by the third year of the Third Five-Year Plan, the whole of the Madras State will be covered by the Community Development Porgramme.

I have merely mentioned off-hand certain salient features in the programme and it is not by any means an exhaustive list. However, thinking deeply about the impact of the programme on the people, I have an apprehension that we have made only a beginning and there is yet a lot more to be done before we can even claim that we have achieved a reasonable degree of success. Consecutive reports of the Programme Evaluation Organization of the Planning Commission have brought out shortcomings of the programme in the field. It has been felt that the contact of the village-level worker with the people should be much more effective and for that purpose the village-level worker must reside in the headquarters of his circle and move about frequently among the villages. Similarly the guidance and supervision from the extension officers to the village-level workers leave much to be desired. Likewise the guidance and supervision over the extension officers from the technical heads of department at the district level also

(Continued on page 23)

The Ootacamund Pilot School Improvement Conference

Dr. H. S. S. LAWRENCE, M.A., ED.,
District Educational Officer, Nilgiris.

Ootacamund, the Queen of Hill Stations, witnessed several achievements during the season this year. The Madras Legislature Session, the visit of the Prime Minister, the A.I.C.C. Seminar on the Third Five-Year Plan and several other events made Ootacamund well-known all the more. No less important was the Pilot School Improvement Conference and Exhition which were unique in the history of Educational progress in the Nilgiris district.

Sri Bishnu Ram Medhi, Governor of Madras, Sri K. Kamaraj, Chief Minister, Sri Bhaktavatsalam, Home Minister, and Sri C. Subramaniam, Education Minister, took part in the Conference and Exhibition. The Governor paid glowing tributes to the public of Nilgiris who had contributed a sum of Rs. 7,03,183.64 in cash and kind for the improvement of various Secondary and Elementary Schools in the district under the Pilot School Improvement Scheme, 1959. The Governorwas so pleased and surprised at the thousands of articles donated by the people that he announced, amidst cheers "his own hunmble contribution of Rs. 500" for the School Improvement Scheme in the Nilgiris. The Committee has well utilised this amount for the supply of children's books to Elementary Schools.

It is no wonder that the people of Nilgiris received congratulations because Rs. 7 lakhs is a big achievement specially for a comparatively backward district like the Nilgiris. Sri Kamaraj in his presidential speech said that this function amply demonstrated the interest and enthusiasm of the people in the Education of their children. The Education Minister, Sri C. Subramaniam, congratulated the organizers of the conference and remarked that if Government had to take up such huge improvement works it would have had to levy additional taxes. The Home Minister, Sri Bhakthavatsalam, commending public generosity towards schools, observed that just as in olden days temples were built with the munificent donations of the people, so also schools were coming up now with people's aid. He said that this was really a revolutionary movement.

It is very interesting to analyse the various items under which people made their contributions :—

	RS.
Total cash donations amounted to ..	89,964. 72
Total receipts in land and kind amounted to	6,13,218. 92
For Ootacamund taluk the contribution is	3,66,596. 64
For Coonoor taluk the contribution is	3,36,587. 00
Total	7,03,183. 64

The following are some details regarding donations in cash and kind :—

		RS.
1	School buildings and building materials	3,00.000
2	Lands for schools	56,000
3	Mid-day meals	50,000
4	Apparatus for teaching and Radio-sets	35,000
5	Playgrounds	21,000
6	Building repairs and white-washing	10,000
7	Sports goods	8,000
8	Sanitary convenience .	6,000
9	Dress for pupils	3,800
10	Maps	3,700
11	Books	3,000
12	Cooking and drinking-water vessels	2,900
13	Clocks	2,400
14	Portraits of leaders	1,400

People donated hundreds of pounds of tea, coffee, potatoes, manure, rice, wheat and cement. One man from Koderi presented a bag of cabbages to the Governor at the Conference. A teacher from Adderley gave away his 15 rabbits which were displayed at the Conference. These were auctioned at the Conference for an amount of Rs. 100 which was used for buying drinking-water vessels for his school. Garden implements, mirrors and combs, slates and pencils, gramophones, bricks and tiles, eating plates and tumblers, furniture, globes, first-aid boxes, black boards, scissors, and musical instruments were some other items donated by the people. Two teachers each contributed their one month salary for their schools. Two Badaga women gave one day's wages. Some managements gave to their schools the entire maintenance grants received. People have thus shown in action what they can do for the education of their children.

The following number of schools participated in the Nilgiris Pilot School Improvement Scheme :—

(*a*) Elementary Schools	240
(*b*) Middle Schools	5
(*c*) High Schools	19
(*d*) Training Schools	2
Total ..	266

Ten thousand three hundred and eighty-two individual persons participated in this scheme. So many had donated something or other, in some small or big way towards the improvement of the school of his choice. The list of donors and their contributions was

printed in separate booklets for Ootacamund and Coonoor taluks. It will thus be seen that this is a People's voluntary movement and that the achievement of Rs. 7 lakhs is undoubtedly an achievement for the people of Nilgiris and an indication of their love for education. If this love is kept up steadily, there is bound to be progress not only in education but in all other fields of human activity. For Education is the foundation for human progress in all fields.

The success of the Ootacamund School Improvement Conference is due largely to non-official co-operation. A non-official committee was formed with Sri B. K. Linga Gowder, M.L.A. as President and Sri J. Matha Gowder, M.L.A. as Vice-President. Sri Ramaswamy Adigal, Srimathi C. D. Mani, Sri G. N. Krishnamoorthy, Sri P. Gujjan and Sri Boja Belli worked as Secretaries. The Conference and Exhibition were successful because of the active efforts of all these non-officials and the co-operation given by Headmasters and teachers. Two preliminary planning conferences were first held in January, one at Ootacamund and the other at Coonoor. A committee was formed in each school thereafter for school improvement. These committees functioned vigorously and brought success and a name for Nilgiris.

Here are the *Panch Shila* suggested by the Director of Public Instruction for these improvement projects :—

1. Annual repairs to and white washing of the school building.

2. Annual repainting of the black-boards.

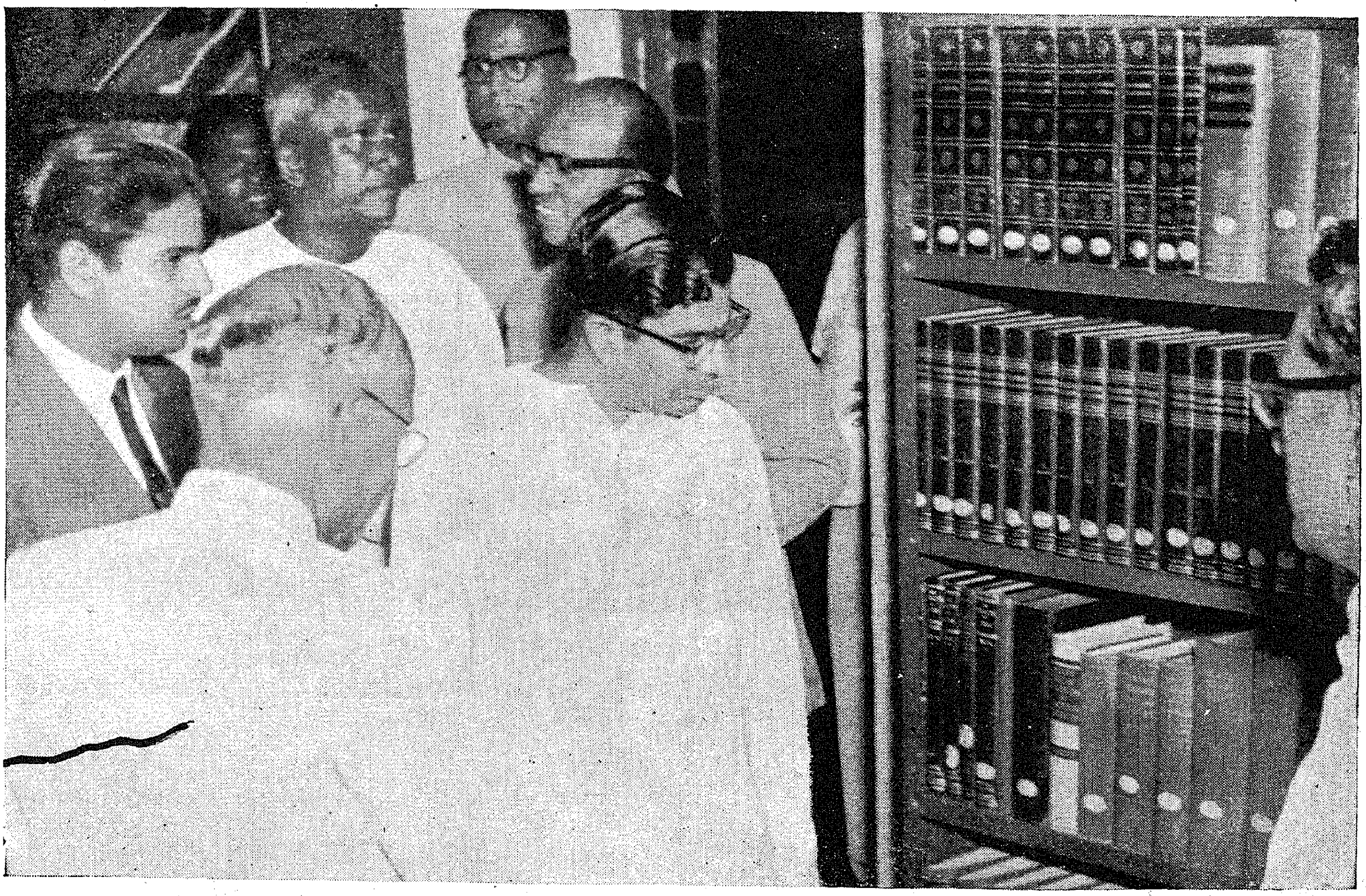
3. Provision of sanitary conveniences, at least of an elementary type.

4. Provision of protected drinking water-supply.

5. Provision of a library.

It is no wonder that the Prime Minister of India has paid glowing tributes to the several educational schemes of Madras and has asked the other States of India to follow our State in educational matters. Madras occupies a very honourable place in the Educational Map of India.

School Improvement Schemes should be never-ending. The public of Nilgiris have donated markedly now. It is, however, neither the first instalment of donations nor the last. Such schemes should take place every year, even every day. The scheme should become a regular feature in all the schools in every district. I am quite confident that it will be so in this district.



The Book Lending Scheme and Home Delivery of Books Scheme were inaugurated at the District Central Library, Madras, by the Minister for Education, Sri. C. Subramaniam.

New Hostel for Madras Medicos

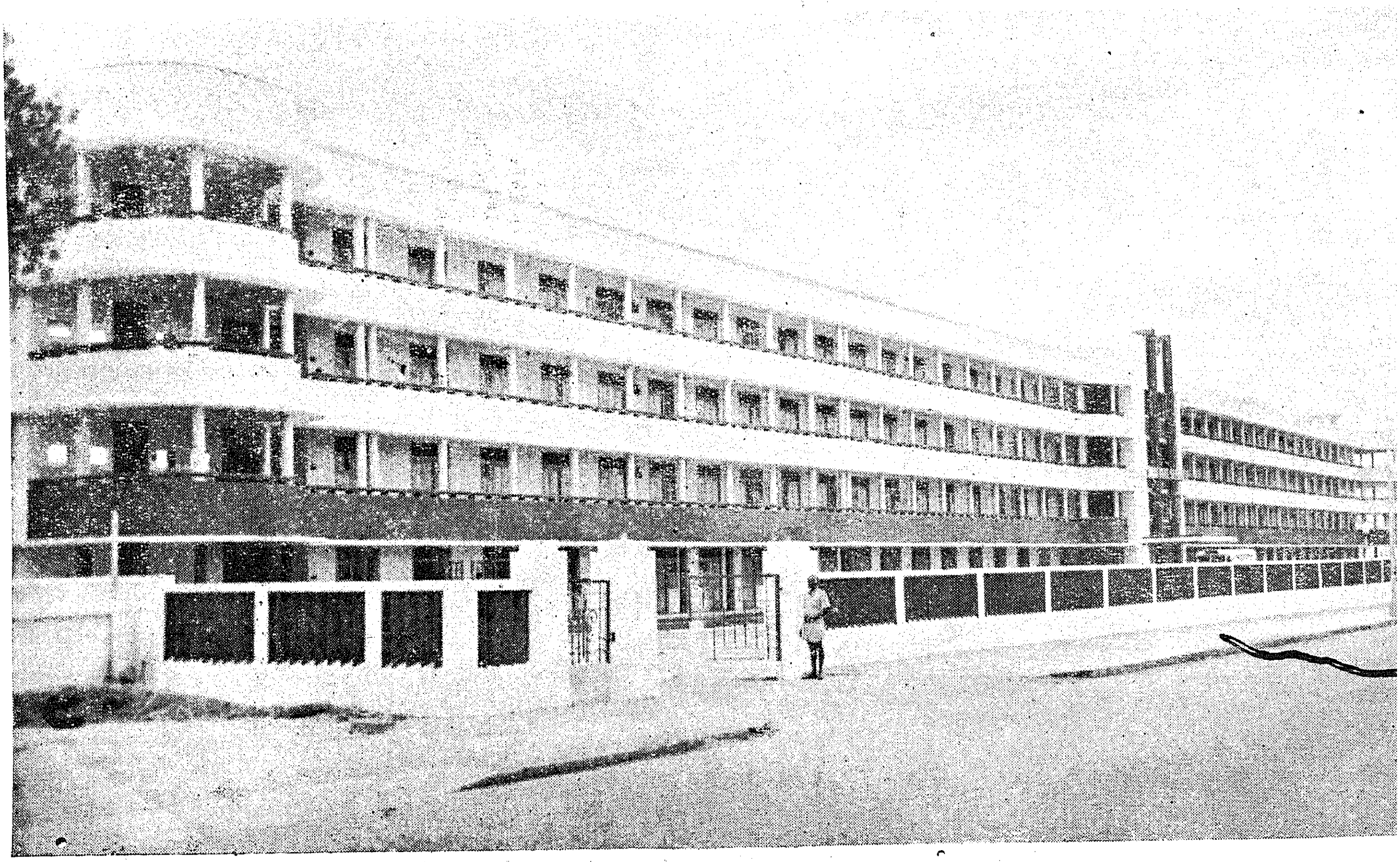
The Madras Medical College Men's Hostel, situated at Frazer Bridge Road, Madras-3, was declared open by the Chief Minister, Sri K. Kamaraj, at a most impressive ceremony held on 18th July 1959.

The function was presided over by Sri M. A. Manickavelu, Health Minister. The Director of Medical Services, Dr. V. R. Thayumanaswamy, welcomed the gathering. An exhaustive report about the various stages of the construction of the building was read out by the Chief Engineer. The Warden, Dr. C. S. Sadasivam, proposed a vote of thanks. The opening ceremony by the Chief Minister coincided with the showering of rose flower petals, and the automatic drawing aside of the curtains at the entrance.

The scheme for the construction of Hostel Building costing Rs. 24·00 lakhs for the men students of the Madras Medical College was sanctioned by Government in 1956. The foundation stone for this building was laid on 26th January 1956 by Dr. A. Lakshmanaswami Mudaliar, Vice-Chancellor, University of Madras.

There was some delay in getting possession of the site and therefore the actual construction of the buildings could be taken up only in March 1957.

The main hostel buildings with a total floor area of 94,000 square feet are in two blocks each four storeyed. The length of the building is 465 feet while the height is 47 feet 6 inches above ground level. The foundations have been taken to a depth of 9 feet below the ground level. This building is a reinforced concrete framed structure with brick panel walls. The hostel provides accommodation for a total number of 508 students, 272 in the first block and 236 in the second block. The



A view of the Hostel.

size of room is 18 feet by 10 feet to accommodate two students. Each room has two independent built-in cup-board-*cum*-wardrobe.

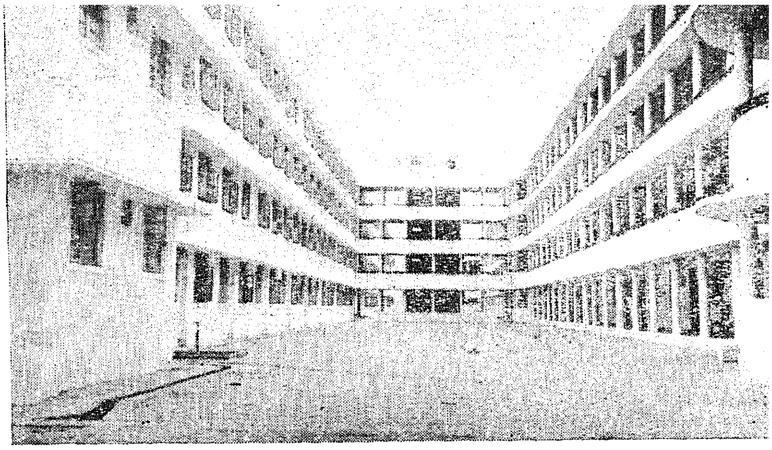
All the necessary amenities like infirmary, left luggage rooms, visitors' rooms, recreation hall, common rooms and library, have been provided in this new hostel. For efficient control and care of the hostel, quarters for Deputy Warden and Resident Tutor have also been included in the main buildings.

The hostel is provided with a large dining hall (size 200 feet by 23 feet) including vegetarian and non-vegetarian kitchens attached to it and the foundations for this block are also designed for taking three more floors. The dining hall has mosaic flooring to enable its maintenance in a clean and hygienic condition. Each floor in the main hostel block is provided with a sanitary wing consisting of an adequate number of bath rooms, water-closets and wash-hand basins and other amenities like shower bath, etc. The hostel blocks are connected in each floor by a corridor. There are also stair-cases at the ends of each block with a main central stair-case in the connecting corridor. When the present dining hall is provided with three more floors in future, it will provide accommodation for an additional number of 96 students in the second and third floors besides library and recreation room, etc., in the first floor.

In the rear of the dining hall a block originally meant as servants' quarters has been built ; it is now proposed to convert it into a hostel for post-graduate students.

Quarters for the Hostel Warden, garages for accommodating two buses, a cycle stand, well laid out roads and compound wall on all sides are provided. The water supply to the hostel is from the Madras Corporation supplemented by a well. An elevated R.C.C. reservoir of 5,000 gallons capacity with an underground sump of 10,000 gallons capacity has been constructed for the purpose. In the construction of the buildings, about 3,000 tons of cement, 600 tons of steel and twenty-five lakhs of bricks have been used.

Taking into account the several important building schemes sponsored by the State Government as part of their development plants, it can be said that Medical Department has the largest number of such works under execution by the Public Works Department. The Madurai Medical College and improvements to the Erskine Hospital, Madurai, the Tanjore Medical College and Hhospital Scheme (costing more than rupees one crore), improvements to the Stanley Medical College and Hospital, extensions and improvements to the College of Integrated Medicine, additional blocks for the Madras Medical College and about 92 Primary Health Centres spread all over the State, are some of the building



The two blocks 'H' shaped.

schemes (to mention only a few) of the Medical Department which have either been completed or are in progress. The expenditure on Medical Department Building Schemes under the Second Five-Year Plan has been steadily on the increase each year as may be seen from the following figures:—

1956–57—Rs. 18·64 lakhs.

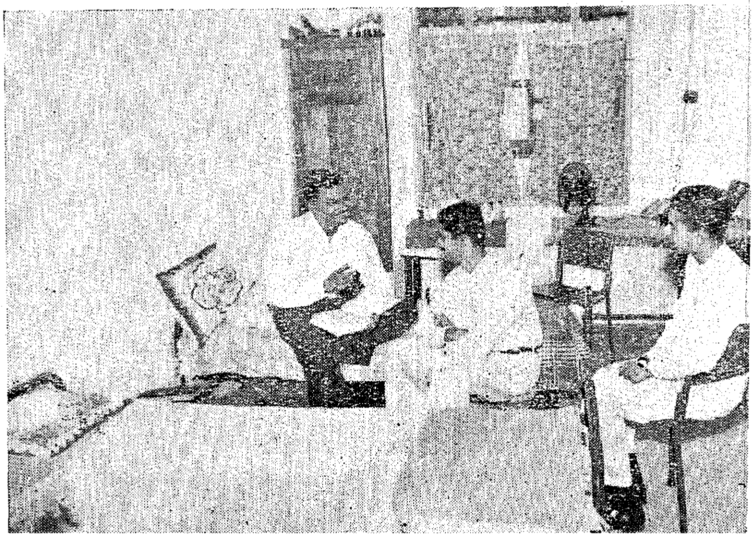
1957–58—Rs. 40·67 lakhs.

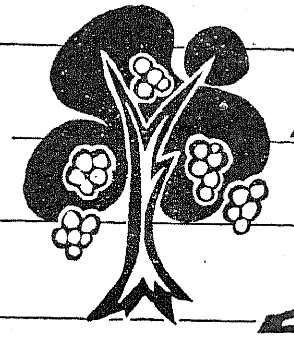
1958–59—Rs. 73·72 lakhs.

1959–60—Rs. 120 lakhs (anticipated).

It is needless to say that the officers of the Public Works Department have to shoulder a heavy responsibility in successfully implementing all these important schemes and that they have done and are doing their very best in carrying out their heavy and onerous duties and thereby maintaining the high standards and tradition of the service to which they belong.

Inside a room.





Fruits in Plenty

For the people of Pavali, in Ramnad district of Madras, the return of young Dhanushkodi five years ago to manage his father's farm marked the beginning of great excitement. Armed with youthful enthusiasm and a head full of new ideas, he set about energetically to turn his father's derelict little farm into one of the most flourishing orchards in the district.

For Dhanushkodi's father, who belonged to a family of traders from the neighbouring town of Virudhunagar, the 20-acre family farm at Pavali was little more than a place in the country where he could occasionally retire for rest. He had planted a few orange, mango, pomegranate and guava trees just to make the place a little shadier in summer.

Young Dhanushkodi had always taken a keen interest in the garden to the great delight of his father. So when, a few years ago, he brought up the subject of developing the farm as a commercial orchard, the old man readily agreed and gave his son full freedom to go ahead.

Vigorous planning.

Then onwards Dhanushkodi began to spend a great deal of his time in Pavali. Around the small nucleus of trees already raised by his father, he carved out an area of seven acres for experimentation. Then, very methodically, he started making the rounds of almost all the Government farms and nurseries in the neighbourhood to collect as much know-how on the subject of orchard-laying as he could. From the Government Experimental Stations at Kodur, Kallar and Coonoor, he got not only good sound advice but also thoroughly-tried plantation material.

In 1953, the orchard was laid on the small seven-acre farm. On the black loam soil, well admixed with liberal doses of organic manures and green manuring, Dhanushkodi planted 125 trees of acid lime, 80 each of orange and mango and a few of *sapota, jaman,* grape fruit, citron and fig. At the advice of the District Agricultural Extension Officer, he adopted the square system of planting.

Dhanushkodi was meticulous in his adherence to rules. Six months after planting, he started applying compost ; this was done twice a year. One or two pounds of bonemeal per tree were added to the compost. Weeding was done in the basins twice a year. Only in one matter, Dhanushkodi permitted himself a departure from the normal practice. He allowed his cattle to graze in-between the rows of trees. This, he explains, not only means automatic weeding, but also provides the animals with good green feed. Moreover, the cattle dung gives excellent manure on the spot.

Abundant fruit.

With so much attention, the orchard was quick in coming up. Guava trees were the first to fruit. The yield was really rich, more than 700 per tree. Soon, other trees started blossoming. Sales were easy and profits high. A part of the proceeds went into enlarging and improving the orchard. Every year a few more acres were added. By last year, the orchard had covered the entire 20-acre farm, and the income exceeded 3,000 rupees.

For Dhanushkodi and his father, this marks the fulfilment of a dream. For young Dhanushkodi, however, this is the beginning of new ventures. He has big schemes for coverting the Pavali orchard into a multi-purpose farm. A small poultry farm is being raised. The number of cattle is also going up, and a small-scale dairy farm is slowly taking shape. Four bee-hives recently acquired are yielding enough honey for home needs and to spare.

To-day, Pavali village looks as busy as one of Dhanushkodi's bee-hives, and its people thank the day when the young man from Virudhunagar came to the village to look after his father's farm. Almost every day, the orchard at Pavali is visited by young farmers from the neighbourhood who, inspired by Dhanushkodi's achievement, are following his lead.

English Teaching Standards in Schools—British Council's Scheme to be Worked in Madras

It has been accepted by Government that the efficiency of instruction in the study of English in the Schools of the State should be improved and that all practicable measures should be undertaken for such improvement. This has been emphasized in the memorandum submitted by them to the Official Language Commission in discussing the question of medium of instruction and study of languages in educational institutions. Government have now decided to institute a campaign for the improvement of the standard of English teaching in the schools in the State. The scheme of the campaign which has been prepared and submitted by the Regional Representative of the British Council in Madras consists mainly of the running of in-service retraining courses for teachers of English in the schools of the State. The first phase of the scheme covering a period of five months will be worked in Madras City and will be confined to the retraining of teachers of English in three of the districts of the State. The salient features of the scheme are :—

(i) A task force of five senior officers and 10 junior officers will conduct primary training courses in the teaching of English each of three weeks' duration for a group of selected teachers drawn from Educational institutions in a local area. Three such training courses will be run, one in each of the second, third and fourth months of the scheme. The first month will be spent in the selection of the junior members of the task force, training of these junior members and preparation for the running of the primary courses. The junior members will continue to receive training from the senior members during the running of the primary courses and will also help the senior members in the running of the courses. Ultimately the junior members will themselves become senior members of other task forces.

(ii) The trainees in each primary training course will, at the end of their training, be divided into groups. Each of these groups will then conduct secondary training courses for teachers of English in its local area. These courses will be conducted over week ends and for short spells at a time so that the normal working of the schools in the area will not be disturbed.

(iii) At the end of the first primary course, one of the senior members of the task force and two of the junior members will detach themselves from the main task force and will carry on follow-up work which will involve supervision and guidance of the secondary courses run by the trainees of the primary courses.

(iv) At the beginning of the fifth month there will be an assessment of the working of the scheme and plans will be formulated for its further continuance. During this month the primary course trainees running the secondary courses will also come back to the headquarters of the task force for conferring with and receiving guidance from the members of the latter.

2. The primary courses in the first phase will be conducted in Madras City. Trainees for the primary courses will be drawn from educational institutions, both under public and private management, in the Revenue Districts of Madras, Chingleput and North Arcot. The secondary courses will be run in these three districts. It is intended to extend the working of the scheme and run primary and secondary courses in other places in the State so as to cover the whole of the State in the first year of the scheme. The aim will be to give in-service re-training to the teachers of English in all the schools of the State according to a planned programme.

3. Two of the five senior members of the task force in charge of the scheme will be Englishmen. The British Council has agreed to spare the services of two of its officers to fill these posts. The Director of Public Instruction and the British Council will be in close touch with the working of the scheme.

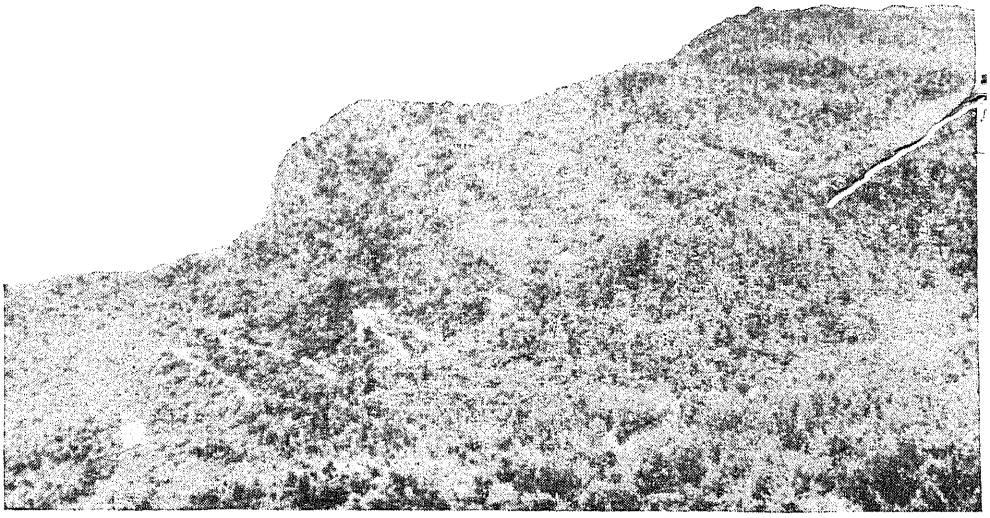
4. This campaign can be extended, with necessary modifications to the teaching of Mathematics, Science, Social Studies and Tamil and it is the intention of Government to consider such an extension after the scheme for the improvement of English teaching has been worked for some time.

5. Government are grateful to the British Council for the help rendered by them in this matter. They trust that schools under private management will take full advantage of this scheme and send their English teachers for retraining and that the implementation of the scheme will result in an appreciable improvement in the standard of the teaching of English in the State.

Use of pumpsets in wells in Lower Bhavani Ayacut permitted

The Government have issued orders permitting installation of pump-sets for unlimited pumping in all wells inclusive of pumping during non-irrigation season in the Bhavani, Erode, Dharapuram and Gobichettipalayam taluks of Coimbatore district and Karur taluk of Tiruchirappalli district subject to the condition that the wells should be 2 furlongs away on either side from the main canals and 1 furlong from the distributaries of the Lower Bhavani Project. Sinking of wells had already been permitted, but using pump-sets is being permitted only now.

Yercaud— The neglected Hill Station

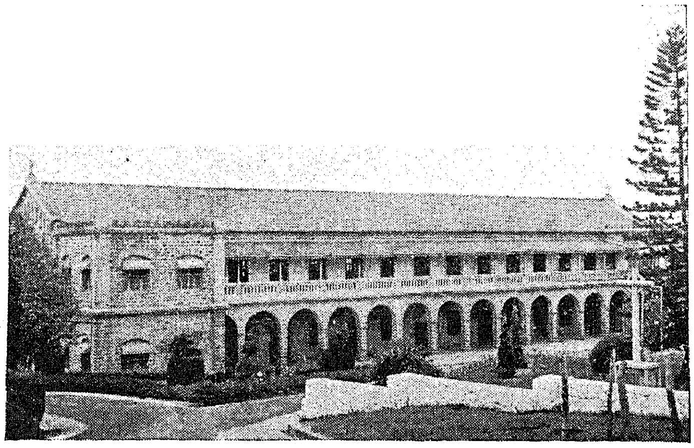


The Hills.

SRI T. RAJARAM.
Manager, Children's Theatre, Madras.

"Did you visit Yercaud?", asked my friend after my recent trip to Salem. I replied in the affirmative and could not help telling what I felt about the place. Although I have been visiting Salem once every year for the past sixteen years, I could not go to Yercaud for various reasons. This time, however, I determined to pay at least a flying visit and see how the place looked like. I was all the more interested as I have already seen Kodaikanal and Ooty, two other beautiful hill stations of our State.

A one-and-a-half-hour journey by bus from Salem Town took me to the hill-top of the Shevroy hills. Although the drive is not an unusual one for a small hill range like Shevroy hills, I was delighted to pass through jungles and thick coffee plantations for which the Shevroy hills are very famous. The forest wealth is not much in evidence although great care seem to have been bestowed on the preservation of what little bushes and trees are there.



The Montfort School at Yercaud is famous throughout India.

As the first impression is always the lasting impression, the sudden appearance of the lake after the bus descends into a small little valley over the hills, leaves a feeling of despair and gives the impression that there is none to take care of this place. Although Yercaud has a lake and a salubrious climate during the summer, the place appeared to be deserted in the month of May, when I visited, and it was really a strange spectacle that such a beautiful hill resort has been left in an underdeveloped condition.

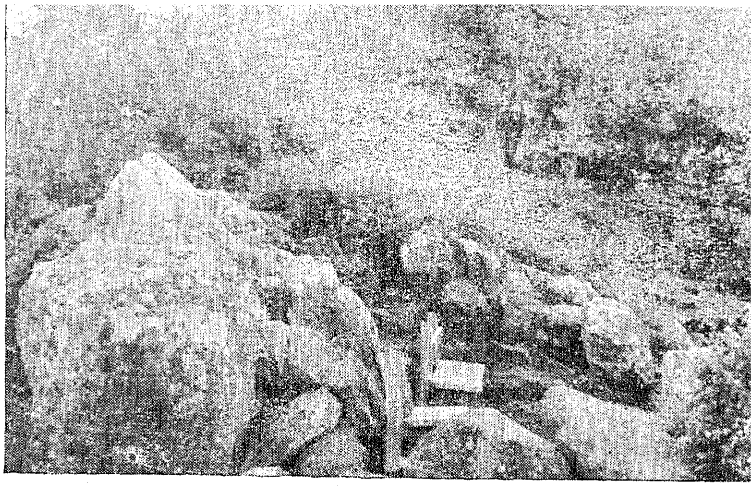
From the lake the bus ascends a steep hill passing through beautiful bungalows, which also have a ghost-like appearance, deserted and without people, compared to the busy and populated town of Salem. At last the bus reaches the Market square, which is the bus terminus. The shops, hotels and the little village, all present a poverty-stricken and miserable appearance. At once the hill atmosphere leaves a sad feeling on one's mind and one is made to wonder why the authorities could not develop the place spending a few lakhs of rupees, so that people of the district and others who come to Salem will not fail to visit Yercaud for pleasure and rest. As soon as one gets down from the bus, he is told that there is not much to see in Yercaud excepting Mye Lady's Seat, the Lake and the Mission School. Once these places are seen, he is tempted to return to Salem Town as there are convenient buses every one hour, which takes him down the hills. This perhaps explains the reason why this hill resort is not prosperous and the people of the locality are not benefited by the tourists. There is nothing to purchase as a product of the hill station. Perhaps the time I visited was not the season for any of the hill products.

Naturally a question arose in my mind : Whether the place is not capable of being developed as a beautiful hill resort to attract more numbers of tourists. If the place is developed which, I feel, can be done very easily, by spending a few lakhs of rupees, more people

could be attracted to this place and it can very well be made a place for rest and recreation with proper amenities for the lower and middle class people.

The first attention is to be paid to the development of the lake. The lake which is of a crescent shape can be made a circular one with an island in the middle and a well-laid-out road or pathway right around it, planted with beautiful avenue trees as has been done at Kodaikanal. The island situated in the centre of the lake can be made a picnic spot, by developing it as a garden with flowering trees and shrubs. Pleasure boating can then be introduced and it can be a source of income for further development works. The shrub forest on one side of the lake can be left as it is now as an abode for birds and animals. A great effort should be made for making the streets and living quarters of the poor people look more sanitary and clean.

Mye Ladye's Seat overlooking the plains is really an attractive spot, unforgettable for the impression it leaves. Sitting over the boulders at this place, one can view the valley down below, the sprawling town of Salem between the mountain ranges, the Mettur reservoir in the distance and also the magnesite quarries which are now being exploited. The milk-white magnesite that is being dug out by open-cut mines and spread in the open amidst the red soil, with green clusters, makes a kaleidoscopic picture. From this place I tried in vain to spot out a human being on the plains but I failed, although the weather was excellent and visibility was good. My immediate reaction was profound and philosophical. I wondered what a small creature man was in the creation of the Almighty and how ridiculous it was for him to boast of his might and intelligence. I felt as if I was humbled by nature all around me. The answer to the perennial question of wherefrom man came and where he goes after death is a mystery that is ever more sharply felt at this spot.



Mye Ladye's Seat.

After this visit to Yercaud, I am fully convinced that it can be made a beauty spot and a place of attraction for one and all throughout the year.

Rice from imported paddy exempted from Procurement

The Government have been gradually liberalising the terms of the levy on paddy and rice imported into this State from Andhra Pradesh, consistent with the progress of internal procurement. It has recently been represented by rice mill owners and merchants of this State that even the recent concession reducing the levy on the rice produced from imported paddy to 25 per cent has not given adequate relief and that most of the rice mills in the State are not having their full requirements of paddy. It has been urged that free and unhampered movement of paddy from Andhra Pradesh into this State will help largely in feeding the rice mills in the State apart from increasing the availability of paddy in the open market. In view of these representations Government have decided to exempt completely from the scope of procurement, paddy imported into this State from outside and converted into rice in this State. This exemption, which will come into effect immediately, will be subject to the production of strict proof in each case that the equivalent quantity of paddy was actually imported into this State.

The Rice and Paddy (Madras) Price Control Order, 1959, as issued in January last applies to the sale of paddy and rice in this State in transactions of more than ten maunds only at a time. There have been cases of persons splitting up their sales, with a view to circumventing the price control order. The Government have therefore amended the order. Under the revised order, which has come into force with effect from 8th June 1959, the maximum prices fixed therein shall apply to all sales of paddy and rice irrespective of the quantities involved, except in regard to sales to consumers in quantities not exceeding two maunds (one bag) in any one transaction. This exemption up to two maunds is intended to enable the retail dealer to add to the notified ceiling price his transport and handling charges and a small margin of profit.

All persons dealing in paddy and rice including mirasdars, should note that the sale of paddy and rice at rates higher than the notified prices is an offence punishable under the Essential Commodities Act, 1955, and will entail the prescribed punishment under that Act.

Mudumalai Sanctuary

(Sri C. A. R. BADHRAM, Chief Conservator of Forests).

Nature has bestowed India with a magnificient variety of flora and fauna—an asset which cannot fail to be generally appreciated by the people, if they are led to realize something of its worth and beauty. It is well known to all those interested in the subject that there is a vital need to-day to preserve India's Wild Life, many species of which are becoming rarer every day, some are even in imminent danger of becoming extinct. In Madras State, the four-horned antelope, the Nilgiri Tahr and the Nilgiri black langur which were common some years back have become extremely rare now. What are the main causes for the depression in numbers of these wild animals? Firstly, the continuous extension of cultivation into their natural habitate and secondly the indiscriminate destruction of these animals for various selfish reasons. The Indian Board for Wild Life was set up in 1952. Most of the States also followed, with the formation of State Wild Life Boards. These Boards advise Government regarding the protection, conservation of Wild Life.

In Madras State, we have two sanctuaries, one at Mudumalai (for Wild Life generally) in the Nilgiris district and the other at Vedanthangal for Bird Life in the Chingleput district. This note gives in brief particulars of the Mudumalai Sanctuary.

Location.

On the Nilgiris side of the Moyal lies Mudumalai, while on the other side of the river is the Bandipur Sanctuary of Mysore State. The animals (in happy ignorance of territorial divisions) cross the river and more freely on either side. The Mudumalai Sanctuary came into existence as early as 1940 with an area of 23 square miles. The area of the Mudumalai Sanctuary was extended to 114 square miles in 1956. The sanctuary is situated between 35th and 45th miles from Ootacamund on the main road to Mysore and is served by regular bus services. Tourists have repeatedly recorded their appreciation of the picturesque scenery of this forest tract. The country amidst which the sanctuary is situated presents a rolling panorama of hills, valleys and plains with several perennial streams and swamps. The rich and varied landscape satisfies the needs of many species of animals, birds and plants. The low, dense forests consist mainly of species of timber trees such as teak, rosewood and karimarudu. As one proceeds towards Mysore frontier, the stock degrades. The altitude varies from 3,000 feet to 3,800 feet. The average annual rainfall is 56 inches and the temperature ranges from 55 degrees to 90 degrees Farenheit. The main streams are the (1) Moyar, (2) Benne Hole, (3) Bidurhalla and (4) Kakkanahalla. The surrounding areas are comparatively dry in summer with the result that the wild animals concentrate found this spot during the hot weather.

Animal and bird life.

Reputed for a long time as the abode of wild range of wild life, the Mudumalai forests are an attraction to visitors and tourists. The period ideally suited for visiting the sanctuary is between November and May and the best month is February. A table showing the best months of the year for visiting the sanctuary is enclosed. With the minimum of luck, one may come across varied forms of wild life, such as, the Indian elephant, bison or Indian gaur, Sambhur, chital or spotted dear, barking dear or muntjac, bear and mouse deer, etc. There are tigers and panthers also in the sanctuary. The black-faced langur and brown monkeys are also to be found. Feathered game is plentiful; beautiful peacock, jungle fowl, she fowl, partridges, green pigeons, etc., are common. For the casual visitor, for the man of the town who wants to enjoy a holiday amidst sylvan surrounding and for students and lovers of Nature, the sanctuary affords equally rich opportunities for observation and enjoyment.

Facilities.

Kargudi is the headquarters of the sanctuary where a Forest Rest House and Tourist Lodge ("Abhayaranyam"), each with two suites of well furnished rooms are available. There are no hotels nearby but there are care-takers attached to both the rest-houses who can prepare on request simple Indian and Western style food. A dark room is provided for the use of photographers visiting the sanctuary.

One of the objects of the sanctuary is to provide facilities to the public to observe Wild Life in its natural habitat. Well trained riding elephants can be hired from the Forest authorities at Kargudi, for the day's joy rides and visits to the sanctuary. In addition to this, departmental vehicles can also be spared for the visitors on payment of hire charges, when these vehicles are not in use for departmental purposes. There are about 45 miles of fair weather roads in the sanctuary along which motoring can be done except in the rainy season. Six observation towers have been constructed at salient points overlooking salt licks, water holes, etc. Arrangements can be made for nights to be spent in these towers comfortably and without any risk.

Some of the rules of the sanctuary.

Shooting, hunting and fishing are completely prohibited within the sanctuary. Admission to the sanctuary is allowed only under permits to be obtained from the District Forest Officer, Gudalur Division, at Ootacamund or the Forest Range Officer (Wild Life) at Kargudi. Except with the specific permission of the District Forest Officer, no one other than an authorized

Forest Officer can carry any fire-arms or explosives into the sanctuary. Motoring in the sanctuary is prohibited without a valid permit. Photography has also to be specifically permitted.

The scale of fees are, as follows, payable in advance :—

Rupees 5 per day for driving a car or other passenger motor vehicle inside the sanctuary. Lorries and heavy vehicles are not permitted. Special permission (at higher rate of charges) will be necessary for vehicles (buses) carrying more than eight passengers.

2. Elephant can be hired at Rs. 10 per trip, but the charge for less than 2 hours will be Rs. 5 only.

3. Visitors to the sanctuary will pay a fee of Re. 1 per head. Visitors are permitted to take photographs free of charge, but permission has to be taken in advance.

4. A fee of Rs. 100 per day is charged for taking pictures with any cine-camera, except for purely personal or non-commercial purposes.

5. At the Forest rest-house rent is charged per unit of 24 hours or less at 50 nP. per head, 75 nP. per couple and Rs. 2·50 for parties exceeding two persons.

6. The fees for occupation of the Tourist Lodge (Abhayaranyam) is Rs. 2 per head, Rs. 3 per couple and Rs. 10 for parties exceeding five in number per suite.

The best time to see the wild animals in the sanctuary is either early morning between day dawn and 10 a.m., in the evening between 3 and dusk. Tourists are requested to reserve accommodation in advance. Sombre dress (kakhi, green, etc.) is desirable. Silence is golden. It is best to avoid sudden movements in the vicinity of the wild animals. No visitors may move about in the sanctuary during the hours between dusk and dawn.

There is a Forest Range Officer stationed at Kargudi who is assisted by six Wild Life guards and 12 Wild Life watchers. Their main job is to watch the movements of animals and to assist visitors (on request) to view them.

Development places.

A sum of rupees four lakhs has been provided for improving the sanctuary under the Second Five-Year Plan. The development works undertaken include the construction of water tanks, observation towers, formation of artificial salt licks, metalling the existing roads, extension of road system, constructing of culverts, construction of new rest-houses and providing electricity and telephone connexion.

Table showing best months of the year for visiting Mudumalai Wild Life Sanctuary, Madras State.

Month.	*Index.*	*Remarks.*
January	4	Grass being burnt off-some winter showers.
February	5	Burning completed and fresh grass available—Fine.
March	5	Do.
April	5	Do.
May	4	Depends on early rain—less good.
June	2	Rainy and more elephant flies.
July	2	
August	2	
September	2	
October	2	
November	3	Depends on last rain-better.
December	4	Do.

Key to Index numbers :

5 Best time for all animals. 4 Nearly as good. 3 Almost but less good. 2 Possible but not recommended.

(*Continued from page* 13)

leave much to be desired. Unless it is realized at all levels that it is only by personal contact and close supervision and guidance that any measure of efficiency can be achieved, we can lay no claim to any achievement. While I am not unappreciative of even the little that has been done which has been due to some endeavour on our part, it is my duty to point out that to-day we face a great deal of public criticism that the large number of extension staff that we have in the blocks is not commensurate with the result achieved. We should not be unduly disheartened by this criticism. On the other hand we should now sit up and take notice of this criticism and find out where the machinery is not ticking properly and take steps to see that it does so. I have no doubt that the programme has generated a great deal of enthusiasm and hope in the people. It is up to us to make use of this enthusiasm and enable them to realize their aspirations and ambitions.

[From the speech delivered at the Fourth Conference of the Block Development Officers of the State.]

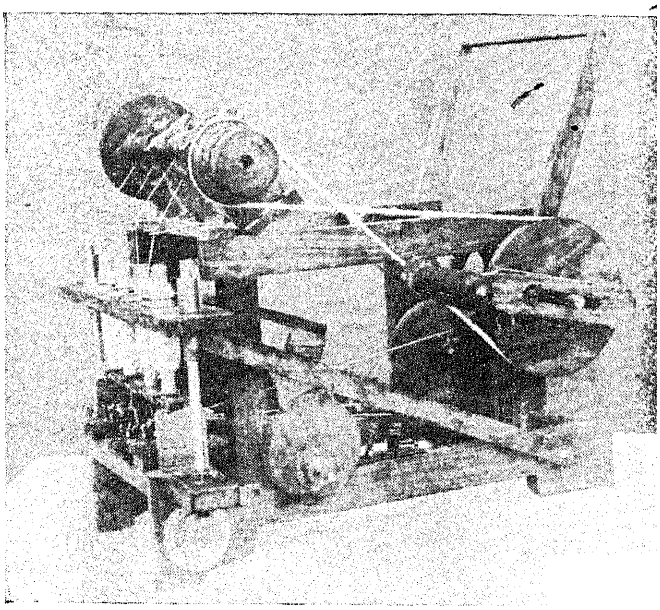
Approved schools

Under the Madras Children (Amendment) Act, 1958, which has come into force with effect from 6th May 1959, all certified schools are to be known as " Approved Schools ". Therefore, the designation of the Chief Inspector of Certified Schools and Vigilance Service will hereafter be Chief Inspector of Approved Schools and Vigilance Service.

Tamil Development and Research Council

The Government have directed that Dr. K. S. Krishnan, President, Delhi Tamil Sangam, be nominated as a member of the Madras State Tamil Development and Research Council.

Ambar Charkha attracts Agriculturists



The Ambar Charka.

Muthakkal, aged 18, is the daughter of Sri Chinnaya Gounder of Vadugapalayam in Coimbatore district. She comes from an agricultural family whose annual income is to the tune of Rs. 1,500. This is hardly sufficient to meet the food and clothing needs of the members of the family. So, there is no question of the family having any savings. If lands had to be improved and cattle had to be purchased, it had to resort to borrowing. And in the villages loans are not easily available.

The desire to do some work that would augment the family income and help it lead a better life made Muthakkal take to spinning on Kisan Charkha which brought her money ranging between Rs. 3 and Rs. 5 a week. But this was not a sizable addition to the earnings of the family. The members of the family were, therefore, eagerly looking out for something better, something that would fetch a substantial income.

A group operating the Ambar Charkas.

The Ambar Charkha Programme attracted the family and Muthakkal joined the Parishramalaya at Vadugapalayam for training. She after having completed her training successfully, received an Ambar Charkha on easy instalment payment basis. She took to spinning on Ambar Charkha regularly from March 1958. Within a period of 39 days (from 1st April 1958 to 9th May 1958) she was able to produce 580 hanks of yarn. Now she is earning somewhere between Rs. 15 and Rs. 20 a week. This means the family's income of Rs. 1,500 has been supplemented by an additional income of about Rs. 900.

Muthakkal is a thrifty girl who invests a part of her income in a chit fund. Major portion of her income is being utilized for purchasing fodder to cattle and improving the cultivable lands with a view to raise the output. There are two more female members in her house, one being her mother and the other her sister. The members help Muthakkal in her spinning. This girl is noted for her earnest and hard work. The Ambar Charkha plies in her house till 10 p.m. every day thus bringing prosperity to a poor agricultural family.

The Ambar Charkha Programme has come to stay in Madras State and is welcomed by one and all as a fruitful source of gainful additional employment.

Police Development Work in the State

Police Development works were undertaken in the following districts in 1958 :—

Chingleput, South Arcot, Tiruchirappalli, Tanjore, Madurai North, Madurai Urban, Ramanathapuram, Tirunelveli, Salem, Coimbatore, the Nilgiris, Madras City, Kanyakumari.

The works undertaken in Chingleput, South Arcot, Tanjore, the Nilgiris and Madras City in 1958, have been completed. In the case of Madurai Urban, Salem, and Coimbatore the works undertaken in those districts during 1956 were continued during 1957 and 1958 also and completed only in 1958. In respect of Tiruchirappalli district, the work undertaken in 1956, has not been completed even during 1958. It has been reported that in Tiruchirappalli district, the villagers have not taken interest and their co-operation by way of free labour was not available. Steps were taken to complete the work in 1959 by enlisting the co-operation of the villagers. The works undertaken in Kanyakumari district and Madras City during 1957 were also completed in 1958.

During 1958, the Superintendent of Police, Madurai Urban was not able to spare the Armed Reserve to complete the work undertaken by him in 1958, on account of heavy bandobust duties, Law and Order work connected with Panchayat Election and also Law and Order situation in Ramanathapuram. As for Ramanathapuram district, no progress could be made in the village selected for 1958 as, it is reported, the villagers were not helpful. However necessary steps are being taken to implement the scheme during 1959. Two-thirds of the work taken up in 1958 have been completed in Tirunelveli district in 1958 and the remaining work could not be completed due to the District Sports and Panchayat Election and efforts are being taken to finish it as quickly as possible. In North Arcot district the Armed Reserve men were fully engaged in building a work shed for the " North Vellore Women's Industrial Co-operative Society " and as such no particular village was selected in 1958 for Police Village Development Scheme.

In all the districts except the Nilgiris and Madras City, Armed Reservemen only were employed for the development work. In the case of Nilgiris district, only taluk men were employed for the work as there is no Armed Reserve in the Nilgiris district. In Madras City able bodied inmates of Government Care Camp at Melpakkam, numbering about 20 to 30 were employed for non-technical work in the construction of the building under the supervision of two Police constables of Government Care Camp.

Villages that are in Community Development Block or National Extension Service Area only have been selected for development work in all the districts except Tiruchirappalli.

Public co-operation by way of voluntary labour is reported to be not generally forthcoming. In the case of Tanjore, Madurai Urban and Coimbatore districts such help is reported to be encouraging.

Voluntary contributions from private parties are reported to have been received in Chingleput, Tanjore, Madurai Urban, Coimbatore and Madras City. The funds required for development work are also obtained on application in certain cases from the District Collectors concerned.

Administration of Workmen's Compensation Act in 1958

During the year 1958, the Commissioner for Workmen's Compensation awarded or disbursed compensation in 129 cases of workers involved in fatal accidents, 73 cases of workers who had sustained permanent disablement and one case of a worker who had sustained temporary disablement. The corresponding figures for the previous year were 177, 91 and 4 respectively. Out of the total number of 203 accidents 95 were in respect of workers earning less than Rs. 50 per mensem, 94 in respect of workers earning between Rs. 50, Rs. 100 and 14 in respect of workers earning above Rs. 100. Compensation was disbursed by the employers to 241 workmen, during the year. Fifty-eight claims were pending at the beginning of the year and 112 claims for compensation were filed and 116 cases were disposed of during the year. The total amount of compensation deposited with the Commissioner for Workmen's Compensation was Rs. 1,96,353. The compensation allotted to women and persons under legal disability was invested on their behalf in the Post Office Savings Bank for payments to them in instalments. One hundred and nineteen Post Office Savings Bank Accounts were opened during the year.

The total amount of compensation paid during the year was Rs. 2,62,699 out of which Rs. 71,815 was for death, Rs. 96,523 for permanent disablement and Rs. 94,361 for temporary disablement.

Occupiers of factories and establishments are statutorily required to furnish annual returns to the Commissioner for Workmen's Compensation under the Act giving particulars of accidents, etc. Out of 12,737 factories and establishments from whom returns were called for, only 5,577 have furnished the returns.

Science ON THE MARCH

World's largest Sea-water Distillation plant

A Scottish firm of engineers has received an order from the Government of Kuwait, oil shaikdhom on the Persian Gulf, for what will be the largest "fresh water from sea water" plant in the world. The plant consists of two units, each of which will produce 1,000,000 gallons of fresh water a day—the greatest output ever achieved by a single flash distillation unit.

The order is worth well over £500,000, and was obtained in the face of strong international competition. This follows last year's order for a similar plant for half-a-million gallons a day in Guernsey (Channel Islands).

Electronic "Memory" gives train times

Of the various pieces of equipment being exhibited by Automatic Telephone & Electric Co. at the British Trade Fair in Lisbon (May 29 to June 14), one of the most spectacular is a Train Time Indicator which, using a magnetic drum as an electronic "memory" activated by a dialled code, shows the time of the "next train" on an illuminated panel.

The inquirer operates a dial and the magnetic drum responds to the six digits dialled, the first two being the code for the desired destination and the remaining four the chisen time of departure to the nearest quarter-hour.

7,000-ton Electromagnet core will be part of Atom-Smasher

The 7,000-ton core of an electromagnet—the biggest in the Commonwealth—is being built for the National Institute for Research in Nuclear Science, it is announced in London. The electromagnet is being built at the Wolverhampton (Staffordshire) factory of Joseph Sankey & Sons, and will be used for research in fundamental physics.

The magnet ring, 160 feet in diameter, is being produced in 336 sectors each weighing nearly 20 tons. Magnet sectors which cost a total of £1,500,000 form the • largest component of a 7,000,000-electron-volt "atom-smasher" being built at Rutherford High-energy Laboratory at Harwell, Berkshire. Total cost of the apparatus will be £7,000,000. It is expected to be completed by 1962 and will, to a large extent, be put at the disposal of university research teams.

Sindri Institute keeps quality check on Fertilisers

At the big fertilisers factory at Sindri in Bihar, they are not only working hard to raise the output to meet the growing demand for fertilisers but are also taking every care to improve the quality of chemicals produced. They know that on the quality of fertilisers produced at Sindri depends the performance of the soil in far-flung regions.

This responsibility falls on the small groups of scientists and research workers of the factory's Technological Department, which has been set up to keep a continuous check on the chemicals that come out of the factory's massive crucibles.

A recent example of the kind of problems the Technological Department at Sindri deals with pertains to the rather odd behaviour of ammonium nitrate, one of the most widely used fertilisers. It is preferred to other fertilisers owing to its high nitrogen content. It has, however, one bad habit. It is quick to absorb moisture and cakes rapidly. The cakes harden on account of pressure present during storage. If the degree of hardness is high, the fertiliser becomes unfit for field use. Only at great expense and inconvenience, the hard lumps can be broken and made fit for distribution in the fields.

The scientists at Sindri, seized with this problem, went carefully into the causes of this phenomenon. Among other things, they discovered that moisture content of the atmosphere has a greater effect on caking of ammonium nitrate than such factors as pressure and temperature. This effect, they found on further investigation, can be mitigated in two ways, both designed to improve the keeping quality of ammonium nitrate. Firstly, it can be done by keeping the chemical in moisture-proof bags. The second method requires the addition of certain cheap and harmless substances to ammonium nitrate to immunise it from the influence of moisture and minimise danger of caking.

Sindri's Technological Department has not only succeeded in developing suitable moisture-proof bags but has also been able, after careful research, to find suitable additives to prevent caking of ammonium nitrate, enhancing the usefulness of this vital fertiliser.

New Facilities for Fish Preservation

Canned fish consumed in India is mostly imported. Some Indian firms have recently started the canning of pomfret and also the production of dry and wet packs of prawn. This has been made possible mainly by the work being done at the various fish technological research centres set up by the Government in different parts of the country. Last four or five years have seen a truly remarkable spurt in research on fisheries, which is well on its way to becoming a big and well-organised industry.

A number of methods for curing and preservation of fish are used varying with local conditions and quality of catch. The chief methods adopted for curing fish in India are sun-drying, and salt curing by the wet and dry process ; preservatives and spices are also added in some places to enhance the keeping quality of preserved fish.

The fish canning and preservation industry in India is still at an early stage of development. Work, therefore, continues even to-day on assessing the relative merits of the various methods used for fish preservation. Suitability of each method under different conditions is being studied, and efforts are being made to finding out ways and means of improving the traditional methods to increase their servicibility to an expanding fishing industry.

Better Mica for Electrical Industry

An instrument for testing and evaluating the electrical qualities of block mica has been developed at the Central Glass and Ceramic Research Institute, Calcutta.

Mica finds many and varied uses in the electrical industry. It is, however, not every kind of mica that can be used in the manufacture of electrical goods. The new instrument at the CGCRI has been specially designed for quick and faultless classification of mica on the basis of electrical properties. This helps in the utilisation of not only good mica but also of the spotted or stained type which would, purely on the basis of conventional and visual methods of examination, get rejected. The instrument thus avoids waste of both time and material. There will be less rejection of mica and, at the same time, an assurance that no bad mica finds its way into the electrical industry.

The instrument has many other advantages. It is portable, self-contained, battery-operated, direct-reading and uniform in its operation. It is also extremely simple to operate and suitable for rapid grading of mica of every size and thickness.

Employment situation in Madras State in the month of May 1959

The overall employment situation in Madras State showed a slight improvement during May 1959. An upward trend was noticed in the districts of Madras, Madurai, Salem and Tirunelveli, while there was a slight decline in the districts of South Arcot, Ramanathapuram and Tiruchirappalli. In the other districts, the position remained static.

Fifteen thousand and eight hundred and six registrations were effected during the month, as compared to 15,855 in the last month, showing a slight fall. There was a marked rise in the number of vacancies notified to Employment Offices, the figures being 4,430 for May as against 2,187 for April. Similarly there was a rise in the number of placings 1,908 registrants including 436 belonging to Scheduled Castes were placed in jobs in May 1959 as against 1,591 in the last month. There was a corresponding increase in the number of applicants submitted against vacancies ; during the month 13,220 applicants were submitted as against 10,552 in the last month. The number of employers in the Public and Private Sectors using the Employment Offices for their man-power requirements increased to 958 during the month as compared to 874 in the previous month. One lakh and sixteen thousand and six hundred and eighty-four applicants remained on the Live Registers of the various Employment Offices in the State at the end of the month as compared to 120,267 in April 1959. There was no significant change in regard to the occupational structure of the Live Register. While surpluses continued in such categories as clerical and unskilled workers, shortages of personnel were keenly felt in respect of blacksmiths, building and town-planning supervisors, draughtsmen, electroplaters, electricians, pharmacists, craft instructors, librarians, language pandits, science and mathematics assistants, instrument mechanics, welders, maternity assistants, physical training instructors and tool setters.

The Man-power schemes in the State continued to progress. The Occupational Information Unit completed the study of occupations in Sugar Industry and commenced study of Occupation under groups "Draughtsman and Science and Engineering Technicians" and "Architects, Engineers and Surveyors". Under the Employment Market Information Scheme, for the quarter ending 31st March 1959, 1,923 employers in the public sector and 1,605 employers in the private sector were addressed for collection the required data. The response from them was good. The materials received from them are being processed. The Youth Employment Service Unit located in the District Employment Office, Madras, rendered Vocational Guidance in groups to 837 youths ; of these 8 youths were later given individual guidance. Thirty-nine schools and other institutions were contacted during the month to acquaint them of the activities of the Youth Employment Service. The work on revision of the Hand Book on Training Facilities in the State (Inplant and Institutional) made satisfactory progress. It is expected that this work will be completed in about a month's time.

Reviews

" Mohan Mala * "

The essence of Mahatma Gandhi's philosophy of life have been presented in the forum of a Rosary of 366 " Pearls " all gleaned from his writings and speeches. This should help the readers understand the Mahatma's message of truth, non-violence and universal love. It deserves mention that the sayings are arranged in such a way so as to enable the reader to make use of the Rosary either for daily contemplation or for continuous reading at a stretch.

S.N.

" The Freedom Road "

The evolution of human society from the early origins of man and the role that his incessant labour has played in establishing the species on the planet, has been a remarkable and at the same time, a peculiar phenomenon. From such evolution, a social history, civilizations and societies have come to be established and destroyed ; but each having left behind an imprint and an impact of its existance. A parallel movement along with this advance of civilization, has been the strenuous efforts of man in his conquest or attempt at conquest, of nature and life, which has also at times and frequently enslaved amongst other living things, man himself. The story of civilization has therefore been and continues to be, one of ceaseless turmoil, efforts, energy, frustration and success.

At every stage or phase of such a history, has arisen one man out of the whole entirety, to propound, propagate and leave behind for posterity to decide and absorb, a few theories which stressed the importance of freedom, the individual and the free society. The latest or the penultimate of such apostles in India, has been Mahatmaji, whose first sayings on Village Freedom dates back to 1915.

The concept of an ideal society centred around the village and the rural community has however not been a new concept either to the Indian genius or her history. The dependance of such a society in this country to the soil and the interdependance of individual members of each such society is clearly established by historic facts from Mohenjodaro onwards. The role and duties of the State to such village communities are catalogued en masse, throughout the pages of Indian History, till for about 300 years in the penultimate phase when the alien rule of the British existed in India. Based on the successive efforts of foreign hordes, it was ultimately left to the British to establish, a system of middlemen and create a landlordism, thus obliterating the rights, which were traditionally those of the cultivator. Alongwith such a process down went the drain, the life and association of an organized village society, with the host of desertions from the face of earth and nature, to the excitements and bustle of urbanity.

It was therefore not surprising that as early as in 1915 when Gandhiji returned to India he was awestruck by the apathy and the destruction of the village societies, by the force of an economy of exploitation, let loose in unflinching fury, throughout the geographical terrain. His concept of village swaraj from very early times, therefore envelope every conceivable social activity, around which human society can have a play and sway. As a result, he envisages a village as a self-governing and self-reliant unit and the seven lakhs of such units acting in broadbased collusion with one another, in setting this country as a great national entity.

Gandhiji goes on as far as to say :—

" I have not pictured a poverty-stricken India containing ignorant millions. I have pictured to myself an India continually progressing along the lines best suited to her genius. I do not, however, picture it as a third class or even a first class copy of the dying civilization of the West."

With the advent of freedom it has come to be realized more and more, that the economic and social resurrection of India, depends more on the rural society, the soil and the village. With the needs of the home, the nation and her people always being felt by all at the helm of the State, it is not surprising that the voice of the Father of the Nation, continues to impart a ring and the bell of action tolls with a greater note of urgency, hurrying all to duty in the task of rebuliding, revitalising and one may even say, reactivating the cloisters of rural life ; for after all, the path of the nation's progress, has been and will be, through our villages.

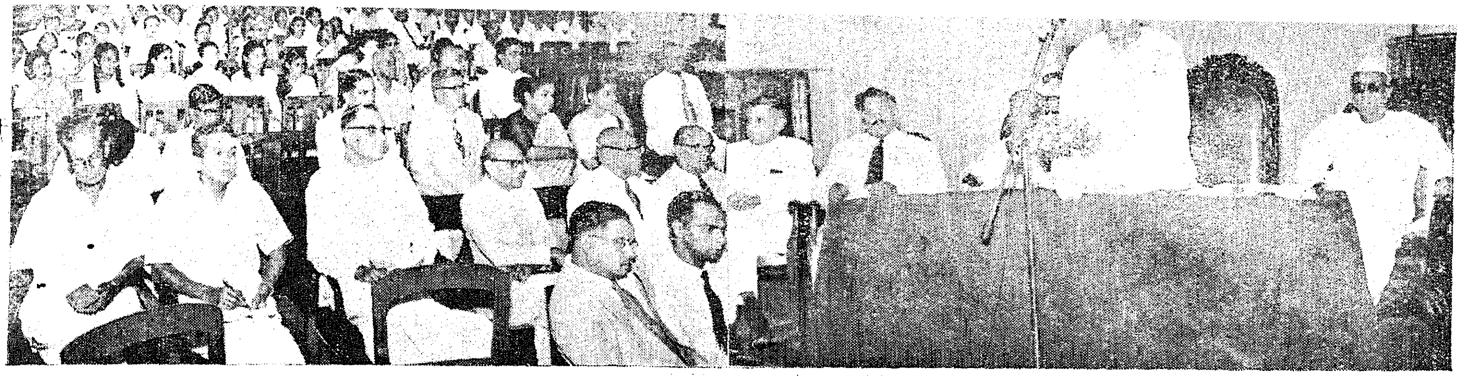
In these circumstances, when the call of the villages is greater, when the future progress of the country depends upon our villages, a small remembrancer on the teachings of Gandhiji, referring clearly and in no unmistakable terms, to the remodelling and reconstruction of our rural life, especially through " Panchayat Raj " as the bsais of local self-Government, which will make the saying Government of the people, by the people, for the people, complete and true, is a welcome feature.

The publication priced low and issued attractively deserves the usage by all those, who to-day have a role, however small, in the developmental activities of the nation. In our State the significance of the publication is not in any way less when we are pioneering in the establishment of a Panchayat Raj, which would merit the approval of the Father of the Nation.

—A.N.

[* *Mohan-Mala*.—A Gandhian Rosary. Published by Navajivan Publishing House, Ahmedabad. Price Re. 1.

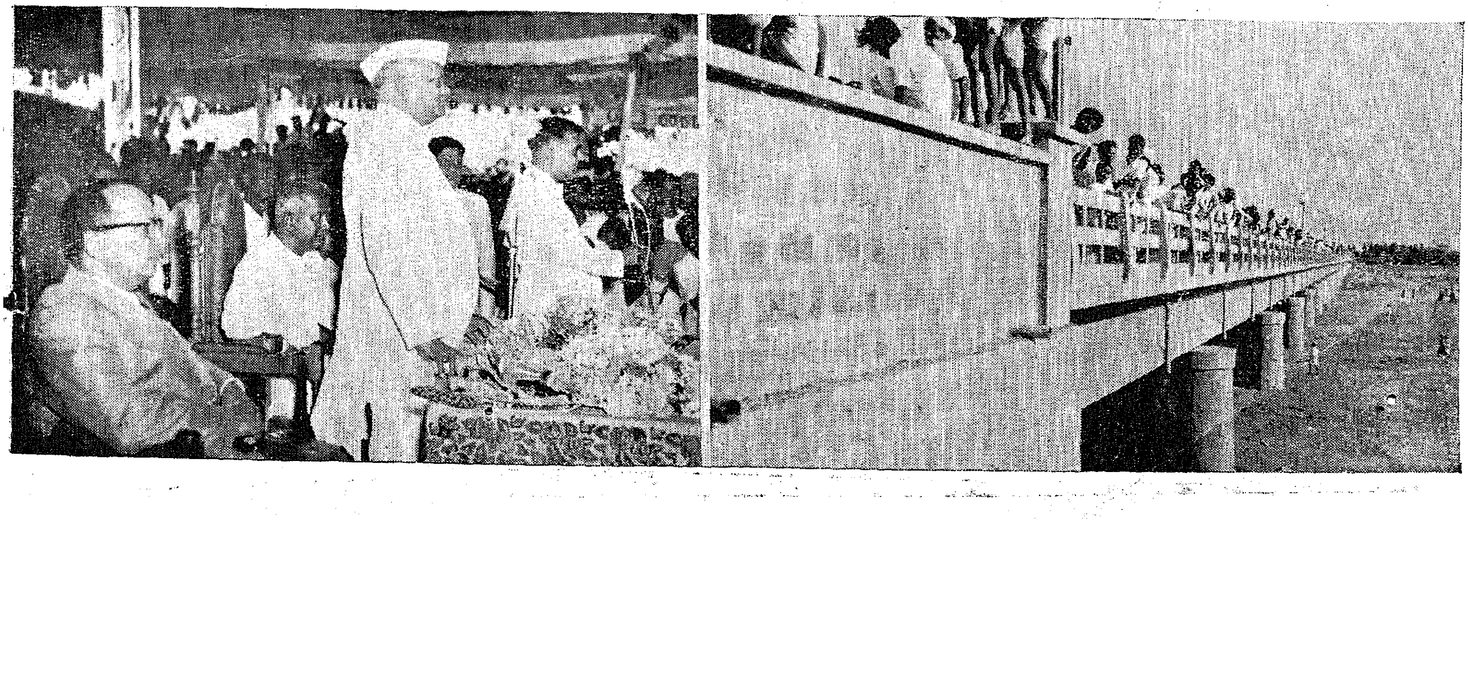
[" Panchayat Raj " compiled by Sri R.K. Prabhu and published by Navajivan Publishing House, Ahmedabad—Price 30 nP.]

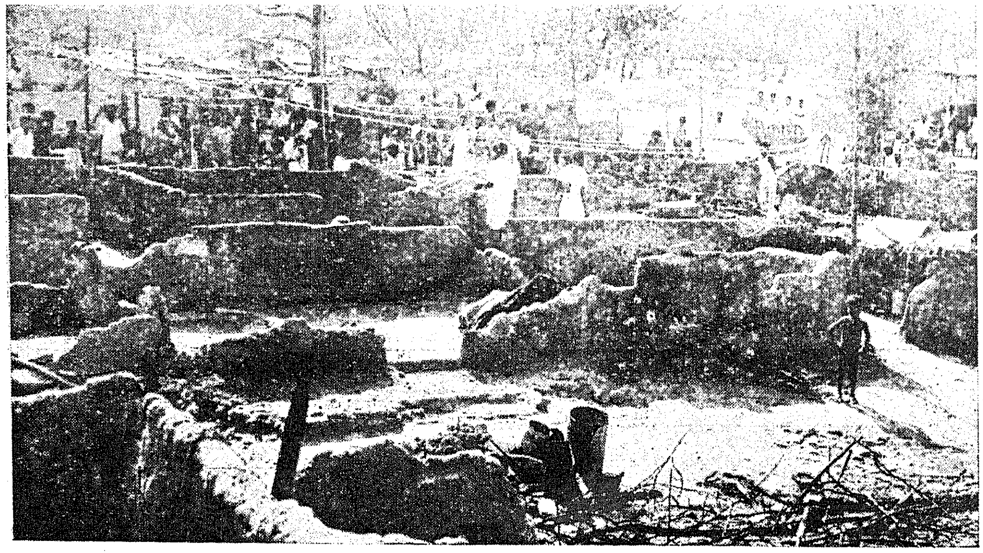


World Health Day was celebrated in the City on 20th July. Photo shows Sri C. Subramaniam, Minister for Finance addressing the gathering at the Madras Medical College.

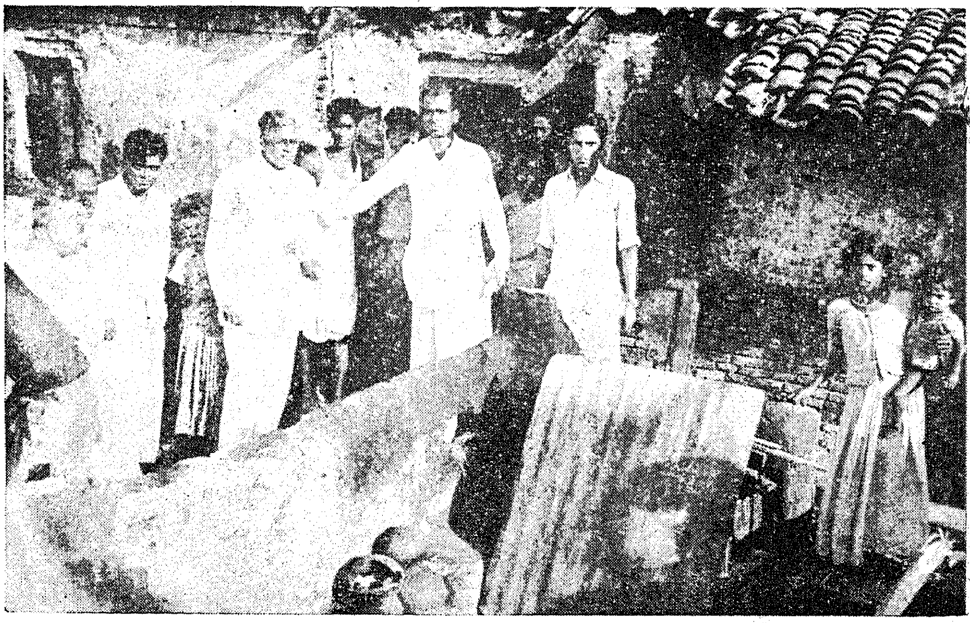
The Slater Hostel for Harijans was inaugurated by the Chief Minister on 16th July 1959 at Vepery.

A bridge across the Palar near Ranipet was declared open on 20th July 1959 by Sri Raj Bahadur, Deputy Minister for Transport and Communications, Government of India.

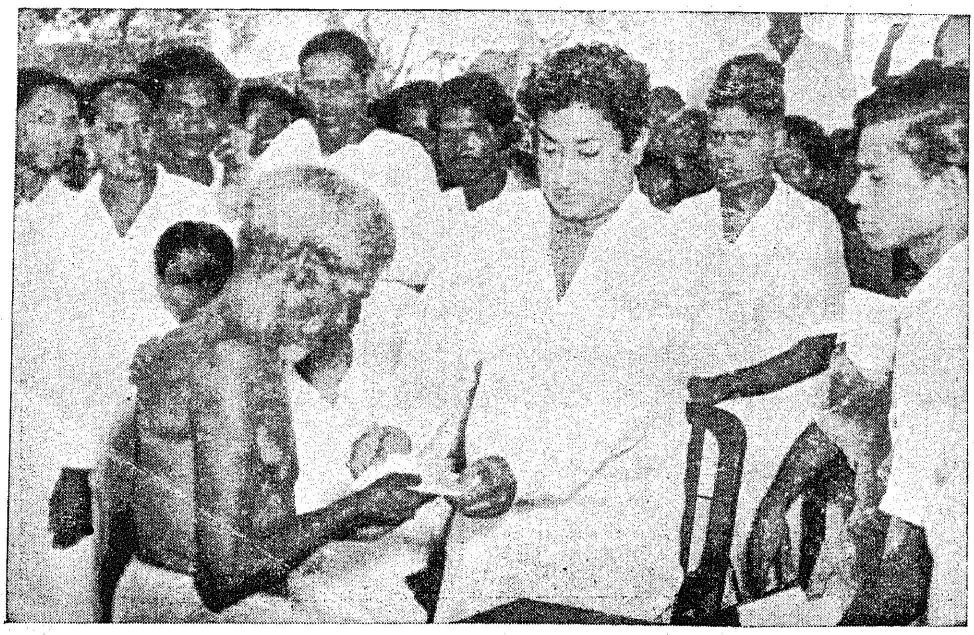




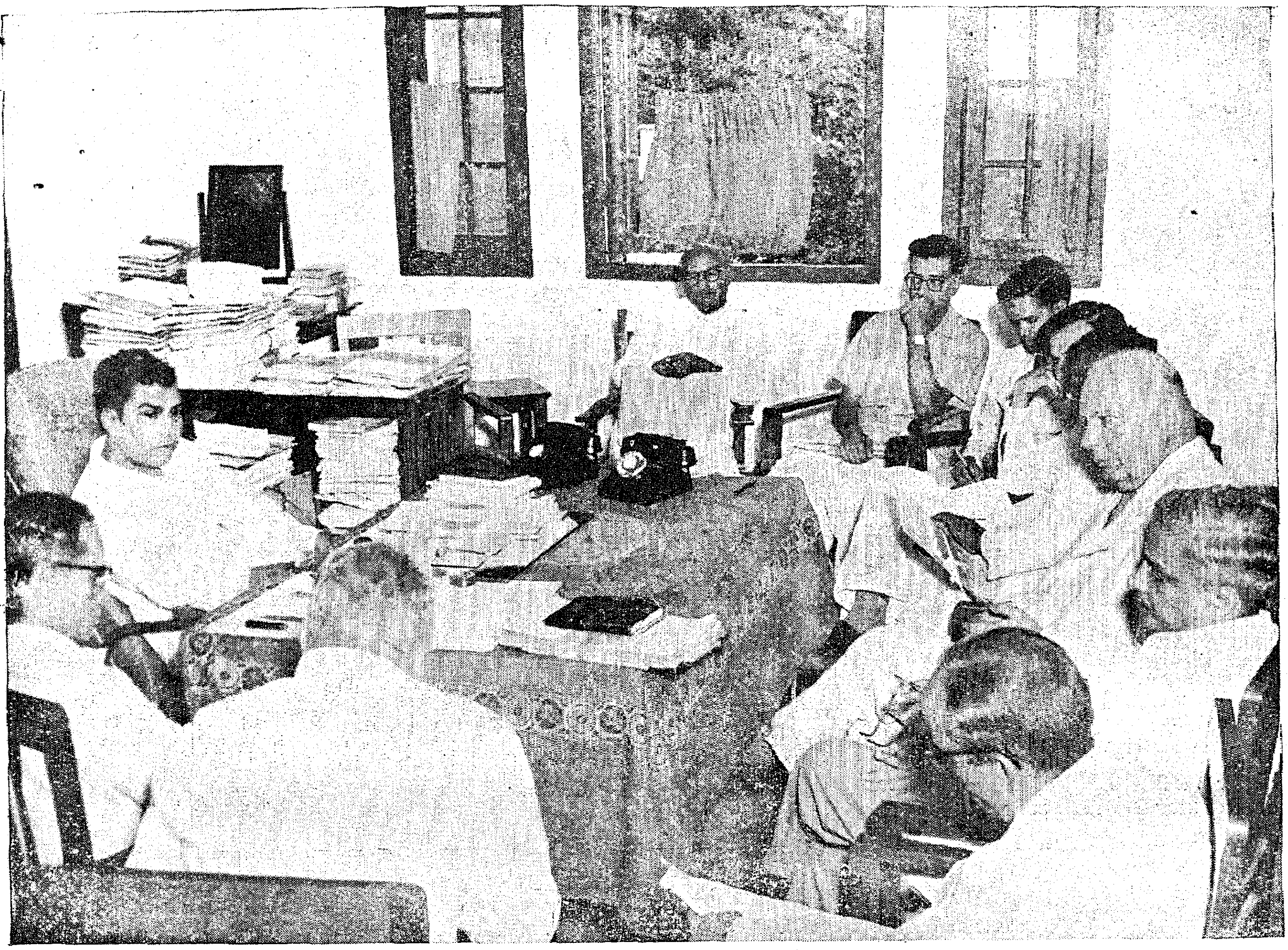
A colony of huts in Teynampet in the City was destroyed by fire in June 1959. Photo shows the havoc caused by the fire.



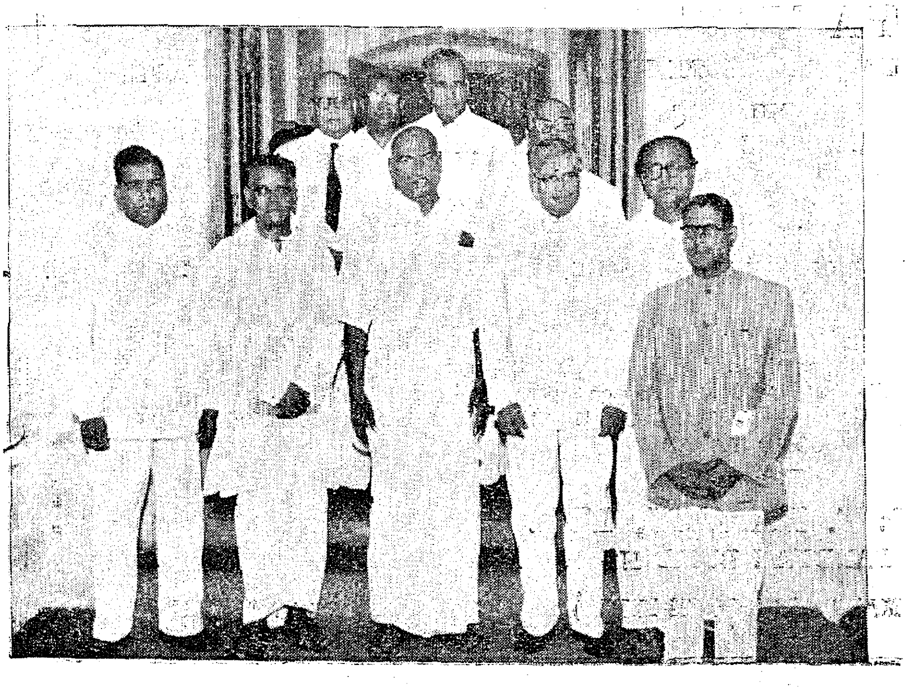
The Minister for Industries, Sri R. Venkataraman and Sri T. T. Krishnamachari visited the spot and made arrangements for relief.



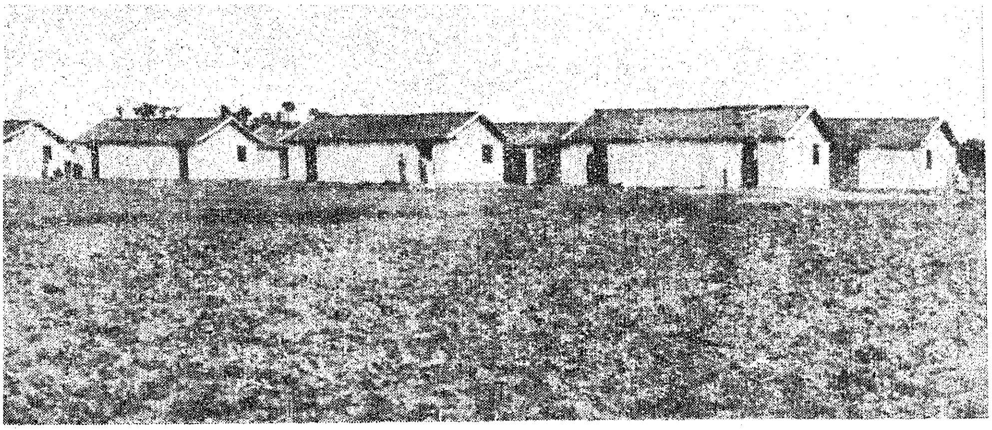
Sri Shivaji Ganesan, Film actor is seen giving Rs. 101 to each of the families rendered homeless by the fire.



M. Von Monroy, Forestry Expert of the Food and Agricultural Organisation, who was on a tour of this State, called on Sri P. P. I. Vaidyanathan, I.C.S., Secretary to Government, Food and Agriculture Department.

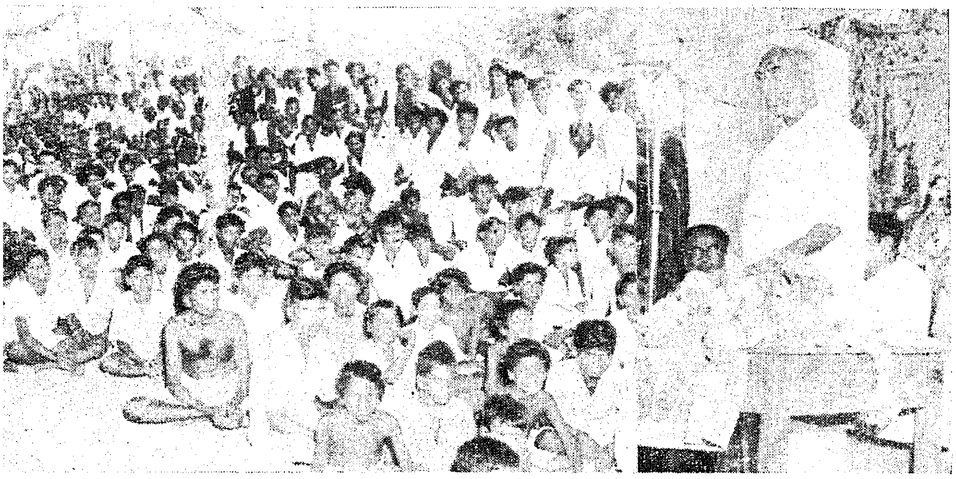


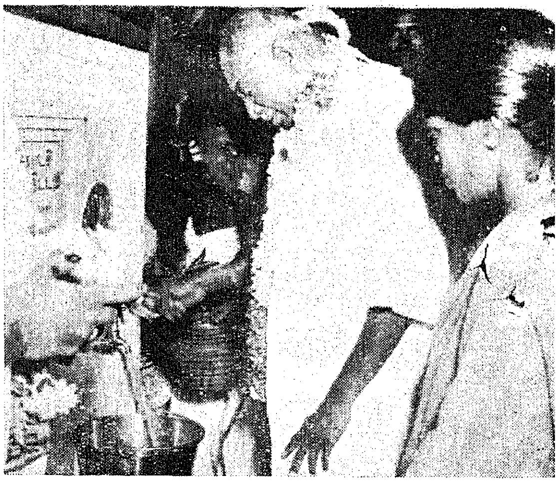
The Members of the State House Mortgage Bank which was recently inaugurated by the Chief Minister, Sri K. Kamaraj.



A COLONY

FOR HARIJANS.





'akkan Nagar', a New Colony for Harijans, was inaugurated by the Chief Minister at Putheri near Kancheepuram in the Chingleput district in June 1959.

Inauguration of the Scheme.

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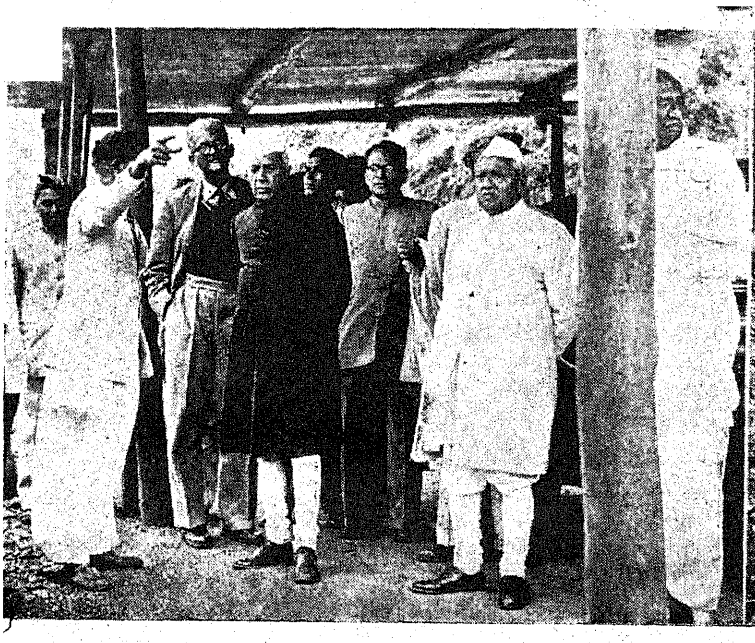
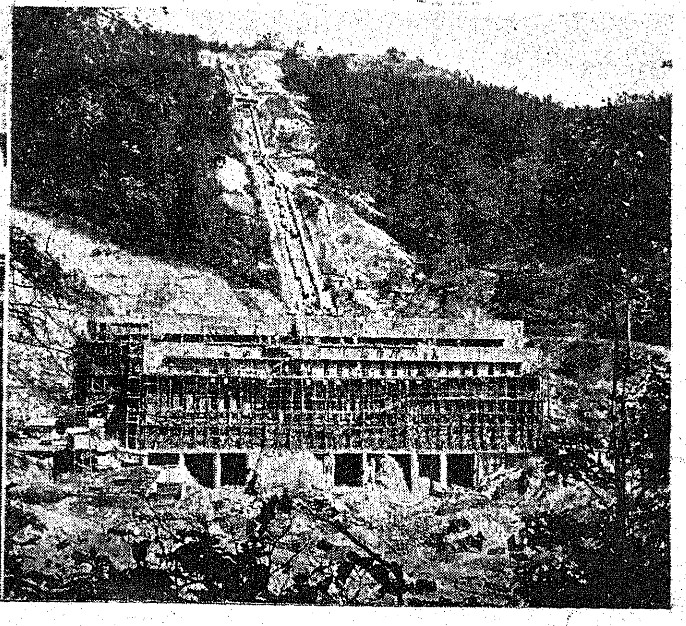
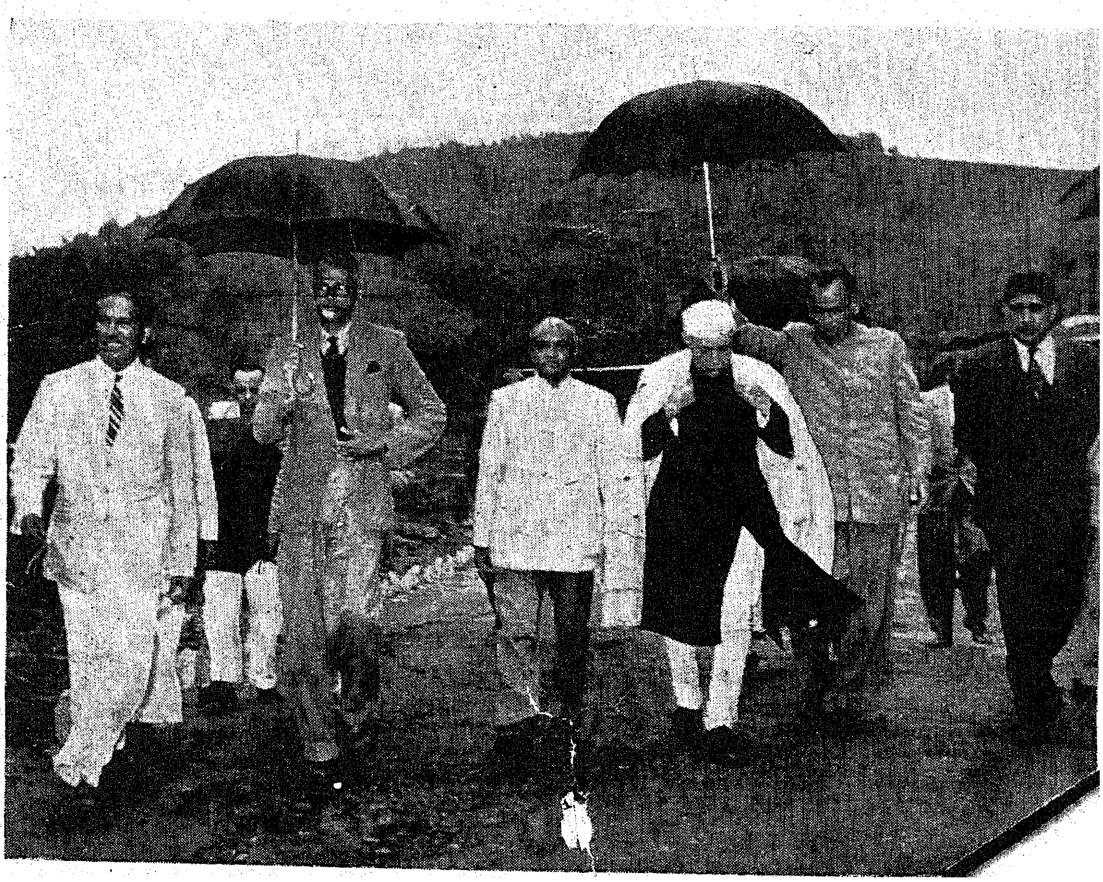




PROGRESS OF KUNDAH

Sri Jawahar Lal Nehru, Prime Minister of India visited the Kundah Power Project in the Nilgiris in June 1959.



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and a cheer to the dejected boy-
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with confidence. But
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is serious enough, as he lacks
in Vitamins A & D.

Stayfit.

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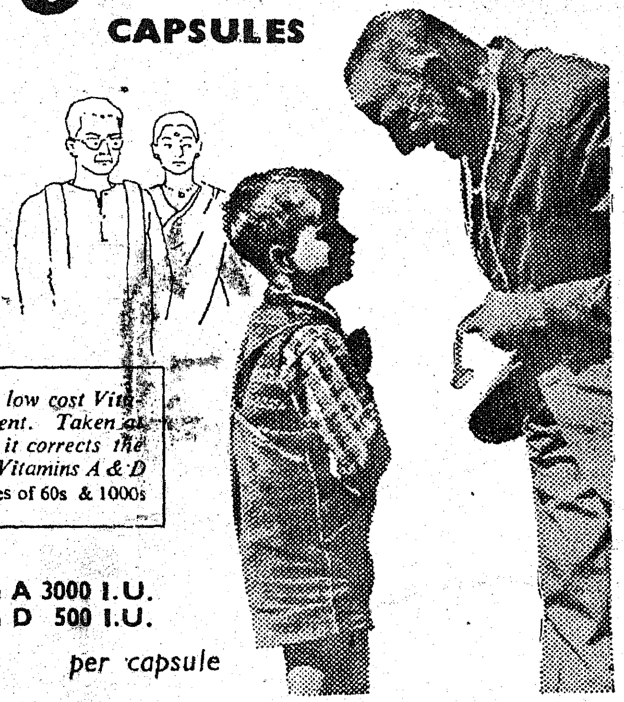

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